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the Sea Swallow



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OF THE ROYAL NAVAL
BIRD WATCHING SOCIETY

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ROYAL NAVAL BIRD WATCHING SOCIETY

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BROWN PELICAN—PANAMA BAY

Photo: Chief Officer J. H. Agnew.

FOREWORD

In my foreword to *Sea Swallow*, 1967, I referred to the coming of age of R.N.B.W.S. The first volume of *Sea Swallow* was published in 1947, and perhaps it would be appropriate to turn over the pages since then.

The Royal Navy was larger in those days and with the annual subscription at two shillings for officers, one shilling for other ranks and two pounds for life membership some 250 members joined willingly! *Sea Swallow* with its thirty-five odd pages then consisted chiefly of articles kindly contributed by Ornithologists on the committee and cost two shillings and sixpence to publish.

In 1951 a start was made to organise a comprehensive seabird reporting system over sea passages and in 1952 a meagre seven passage reports came to hand. During 1953 through liaison with the marine section of the Meteorological Office a steady flow of reports on birds at sea from Merchant Ship Met. logs began to be received. It was in 1955 however that the greatest advance in the acquisition of data through seabird and by now landbird passage reports arose through the widening of membership to all ranks of Her Majesty's Merchant Navy. Now the number and quality of reports from sea rose rapidly. In 1960 Dr. W. R. P. Bourne undertook to summarise the details of sea reports of seabirds received in systematic order. By 1961 the annual intake of sea passages had risen to fifty-five and by 1967 to nearly eighty covering seabirds and thirty-three covering land birds. In 1965 through the co-operation of the Meteorological Office the British Ocean Weather Ship sea and land bird reporting system was introduced, made possible by the keenness of our observers at the four weather reporting stations.

Membership today remains much as it did in the first flush of enrolment in 1945, but the Society is fortified by twenty Ornithologists in overseas countries who act as R.N.W.B.S. Local Representatives and thirty who are Corresponding Members, recently accorded the title of Associate Members.

Today *Sea Swallow* in its eighty or more pages gives testimony to the increased value and variety of the information it contains largely from the contribution of members, and pays tribute to the increasing interest and knowledge of sea and land birds at sea which is the principal objective of the Society.

While our Society is clearly thriving and makes a very worthwhile contribution to the science of ornithology on a world-wide basis I believe there are many more seafaring people who would join if they knew more about our Society and its activities. Let us therefore try to recruit at least one more member each during the next twelve months.

Nigel Henderson

THE CHAIRMAN,
NORTH ATLANTIC MILITARY COMMITTEE,
BRUSSELS.

EDITORIAL

ANNUAL REPORT *SEA SWALLOW*, VOL. 19, 1967—AN APOLOGY

Sea Swallow, 1967, normally due for publication early in 1968, was, for reasons unforeseen at the time, very seriously delayed. I have been the first to realise that when a publication bears on its cover the words 'Annual Report' one is in naval parlance under an obligation to 'make it so.' Certain articles therein of current interest at the time have become somewhat stale news; others bearing more on records of observations of seabirds may stand some delay. As Chairman and Editor I realise the frustration caused to those who so kindly subscribe towards it, and I wish to open this editorial by expressing my sincere regret.

STATE OF THE SOCIETY

During 1968 and up to 1st September, eleven new members have joined the Society, two new Associate Members, and H.M.S. *Fulmar* has been enrolled under Corporate Membership.

We welcome the addition to our R.N.B.W.S. Local Representatives of Mr. Robert G. Wolk, Ph.D., Curator of Life Sciences, Nassau County Museum of Natural History, State of New York. Mr. Wolk offers facilities to members at Long Island, and to the extensive seabird collection at the American Museum of Natural History in New York City. His address is: Seaford, New York 11783, U.S.A.

PROPOSED FORMATION OF AN R.N.B.W.S. BRANCH AT H.M.S. FULMAR (R.N. AIR STATION, LOSSIEMOUTH, MORAYSHIRE)

R.N. Air Station, Lossiemouth, is well situated as a centre for bird watching, not only on the low sea cliffs where Fulmars, Kittiwakes and Gulls breed, but also where Terns, Ringed-Plover and others are to be found on the wide shingle beaches. It is also an area where a great variety of other species abound.

A local Birdwatching Group has recently been formed under the guidance of the Rev. J. A. R. Marks, R.N., and consideration will be given at the Annual General Meeting in December, 1968, to its establishment as an authorised local branch of R.N.B.W.S.

CORRESPONDING MEMBER—CHANGE OF TITLE TO 'ASSOCIATE MEMBER'

A motion to substitute the title "Associate Member" in lieu of "Corresponding Member" was adopted unanimously at the Annual General Meeting in December, 1967. The terms for Associate Membership to remain as laid down for Corresponding Members under the constitution.

GRANT BY THE ROYAL SOCIETY TOWARDS PUBLICATION COST OF *SEA SWALLOW*

Members will be well aware, while others who do not carry the responsibility, may yet appreciate the recurring problem in a society of the nature and size of R.N.B.W.S. of 'making ends meet' financially when increasing material available for the publication has to compete against ever-rising costs. The Society is therefore extremely grateful to THE ROYAL SOCIETY for a generous gift of £100 towards the future cost of the publication of *Sea Swallow*.

REPORTS FROM SEA

The completed passage reports from members continues to increase at a rate which although not becoming unbearable, creates a certain backlog for plotting individual species on ocean maps and summarising in *Sea Swallow*. For example twenty sea report sheet (seabird) passages, and twenty-six census sheet (seabird) passages for observation in 1967, and some in 1966 received late, are being analysed in this issue. Those received since 1st January, 1968, must be reserved for the next issue of *Sea Swallow*.

For Sea Passage landbird reports those received up to the 1st August, 1968, have been included in this issue, and this date applies also for complete examination forms of both sea and land birds recovered onboard.

The analysis of Total Ocean Weather Ship records for 1967 are also covered in this issue. Figures showing numbers of passages hardly do justice to the quantity and variety of birds that are observed all over the oceans. A single sea passage report often includes forty observations at different points; on one occasion, over a long passage, over 400 observations. In the census sheet form of reporting, a single serial number covering so many hours of continual watch will include a number of differing species. These larger figures do not detract by one iota the value of only a few observations. The seas are wide and in many areas almost entirely devoid of birds.

ACTIVE WORK BY MEMBERS REPORTING FROM SEA

	1966	1967	1968 (To 1st Aug., 1968)
Standard Sea Passage Reports (seabirds) ...	53	41	26
Census Passage Reports (seabirds) ...	31	36	13
Passage Reports (landbirds) ...	20	33	15
Birds examined onboard			
Seabirds ...	31	22	20
Landbirds ...	20	18	7

These totals do not include Ocean Weather Ship reports.

SEA AND LAND BIRD OBSERVATIONS FROM BRITISH OCEAN WEATHER SHIPS IN THE NORTH ATLANTIC

Summarised by Captain G. S. Tuck, R.N.

The organisation for recording daily counts of sea and land birds by R.N.B.W.S. observers in the ships on their stations was brought into being in 1964. The year 1967 provides the most complete coverage yet recorded and testifies to their sustained enthusiasm in logging daily totals of all species of sea and land birds counted for an average of twenty-four days on a stretch on each occasion of their ship being on duty.

STATIONS MANNED BY OUR OBSERVERS

STATION ALPHA

January 1-22, July 20-August 7	R. B. Dyer
January 23-February 17, August 11-September 3 ...	R. J. Burness
May 5-28, November 16-December 8	C. I. Griffiths

STATION INDIA

January 6-27	N. Lynagh
January 30-February 23, August 17-September 8 ...	C. I. Griffiths
April 15-May 8	E. D. Macdonald
May 10-June 2	R. J. Burness
June 29-July 23	E. D. Macdonald, C. I. Griffiths
November 28-December 13	R. J. Burness

STATION JULIET

February 22-March 17	N. Lynagh
March 21-April 11	C. I. Griffiths
June 1-15	R. B. Dyer
June 26-July 20	R. J. Burness
October 2-23	C. I. Griffiths

STATION KILO

March 1-20	R. B. Dyer
March 25-April 17	R. J. Burness
September 19-October 3	R. B. Dyer
October 4-30	R. J. Burness

PRESENTATION OF OBSERVATIONS

Seabirds Table A, Landbirds Table B.

Table A. The total number of each species per period and the average number per day (where large numbers are concerned), is shown under each Station in sequence of months. Only birds positively identified are included with the exception of Storm-Petrels and Terns. In these latter groups identification of individual species is often uncertain due to distance or weather conditions and in such cases numbers refer to block totals of Terns sp and Storm-Petrels sp.

SYMBOLS USED IN TABLE A

Numerals	=	Total numbers counted over period on station
*	=	Very large numbers, 50-100 plus daily
‡	=	Large number, 50 plus daily
a	=	Adult plumage. If no letter assume adult plumage
i	=	Immature plumage
B	=	Blue phase (Fulmars)
av d	=	Average daily count
dir N (etc.)	=	Direction of flight North if clearly observed

SEA BIRDS—GENERAL PATTERN EMERGING FROM THREE YEARS OBSERVATIONS 1965, 1966, 1967

A single year's observations is of little value in drawing any conclusions and it is only after a series of consecutive years' data that any distinctive pattern of the habits of the seabirds covering this North Atlantic area can be deduced. Thanks to our observers now after three years a distinctive pattern of the proportion of the different species at sea at different seasons is beginning to emerge and to show a marked regularity. Of more interest perhaps is the evidence, particularly in the three easterly stations, India, Juliet and Kilo, of the regular dates of migratory passage of those globe spanning species, the Skuas (little data I fear on Terns), of the Great and Sooty Shearwaters, and to a lesser extent of Wilson's Storm-Petrels. The three stations are situated in a North/South line separated by some 900 miles from India in the North to Kilo in the South.

ALPHA—Some 300 miles W x S of Iceland

INDIA—Some 250 miles S of Iceland

JULIET—Some 360 miles W x S of Ireland

KILO—Some 350 miles W N W of Cape Finisterre

Not all the species observed call for special mention.

It is of interest in considering the situation during 1967 to refer back also to similar situations at the same periods in previous years and the comparisons are included under each station.

STATION ALPHA 62°30'N. 33°W

FULMAR PETRELS AND KITTIWAKES

Fulmars far outnumbered Kittiwakes at this station 300 miles West by South of Iceland in 1967, some 80 per day, 1,500 to 2,000 per period, milling around ships, with no marked reduction during the breeding season of May/June/July. This applied equally in 1964, 1965 and 1966. In 1957 about 2 per cent of birds were noted as 'blue phase.'

Kittiwakes were markedly less and were variable, not more than 20 per day, and virtually disappeared from the area in June and July, period totals of 38 in July/August 1967, 2 in July 1966, 13 in July 1965, and only one in June 1964.

SKUAS, POMARINE SKUAS

Twenty-six were passing North during May 1967, and this coincides exactly with similar counts of 20 in May 1966, and 28 in May 1965. They appear to have completed their passage by mid-June. GREAT SKUAS. The main occurrence on a smaller scale occurred in May in

Eight

1967, 1966 and 1965, 8, 11 and 7 birds being counted respectively. Virtually no ARCTIC or LONG-TAILED SKUAS have been observed in May in any year although 10 of the latter were counted in June 1965.

During the latter half of August 1967 all four species were recorded again, 12 Great, 2 Pom, 8 Arctic, 10 Long-tailed, but we had no observers on Station Alpha during this month in previous years.

GREAT SHEARWATERS

A few Great Shearwaters had reached this far northerly area by the end of July 1967, increasing to a total count of 284 during August, some moving southeast. No ships on station in August in previous years, but only a total of 3 birds in July, 1965.

SOOTY SHEARWATERS

It appears that only an odd Sooty Shearwater reaches this area at all and none before July. Totals of 3 in August 1967, 2 in July 1965, none reported in any other months in 1967, 1966, 1965. STORM-PETRELS. Although one Leach's Storm-Petrel was reported in July 1965, there have been no sightings of Storm-Petrels during any months in other years in the area.

GULLS. GLAUCOUS AND ICELAND GULLS

A few of each species have been reported each year during the winter months, November to February on a count of sometimes one per day, but they have been absent during summer months. Great and Lesser Black-backed Gulls have been observed in all three years in small numbers on most months, the Great Black-backed Gulls in greater numbers during January/February, and some of both species being around ships in May.

AUKS

Isolated sightings of Common Guillemots and Puffins have occurred in each year in May and June to the tune of a dozen or less in a month. A few Little Auks have been seen, 15 in July 1967, 12 in May 1966, and 5 in May 1965 and November 1965.

STATION INDIA 59°N, 19°W

FULMAR PETRELS AND KITTIWAKES

Very large numbers of Fulmars were present in all months in 1967, sometimes averaging over 100 per day, 2,000 to 3,000 per period. This coincides with similar records in 1965 and 1966. During February 1967, very high winds and seas made observations difficult and the small numbers of both Fulmars and Kittiwakes reported probably does not reflect the totals in the area. In February 1966, for example, there were three times as many of each species. KITTIWAKES were always considerably fewer and again one notes the very marked reduction in numbers in June/July—totals of 78 in 1967, 43 in 1966.

SKUAS

During the months of April/May 1967, one notes the sudden occurrence of Pomarine, 50, Great, 83, and Arctic, 21, Skuas, with only 2 Long-tailed Skuas passing through the area. A similar but somewhat lesser count of Great Skuas occurred in April 1966 and of Pomarine Skuas in May 1966. During the latter half of August and September all four species were again passing through the area in 1964, 1965, 1966 and 1967. Great Skuas easily predominating, 28 in 1964, 30 in 1965, 24 in 1966 and 14 in 1967. Arctic Skuas have shown counts amounting to one-third of Great Skuas with somewhat smaller numbers of Pomarine Skuas and 3 or 4 Long-tailed Skuas. There are no counts after September and the main southerly passage appears to occur in August.

GREAT SHEARWATERS

A few Great Shearwaters appeared at India from July to early September, approximately one per day being counted. From previous records in 1965 and 1966 it seems that none appear before the end of July and remain in the area during August, but few at that. SOOTY SHEARWATERS. A total of one per day first appeared in August 1967, total 20 per period, and this coincides with 20 in August 1965, and 17 in August 1966. MANX SHEARWATERS. Totals of roughly 20 per period were seen in July/August 1967, corresponding with some 17 in August 1966, and 15 in August 1965. It is noticeable that the appearance of both Sooty and Manx Shearwaters has only occurred from August to early September in each year.

STORM-PETRELS

As at Alpha the almost complete absence of Storm-Petrels at Station India at any season during all three years cannot be overlooked.

GULLS

Great and Lesser Black-headed Gulls with a larger proportion of Lesser Black-backs and considerably fewer Herring Gulls are present during most months of the year, but have more or less deserted the area in all years during July. Black-headed Gulls are only seen occasionally.

TERNs

It is always difficult to identify terns but at the end of August 1967 a total of 153 Arctic Terns were observed covering several days mostly moving westwards. This coincides with the only previous records of 13 in August 1964, and 114 'Comic' terns in August 1966, indicating a southerly passage during August.

STATION JULIET 52°30'N, 20°W

FULMAR PETRELS AND KITTIWAKES

During February and March 1967, the lack of records of Fulmars cannot be accounted for though there appear to be small total numbers in this area than in other more northerly areas recorded over the past years. Whilst Fulmars were averaging 40 per day around ships in June and July 1966 and 1967, Kittiwake numbers had dropped to a total count of 7 throughout July in 1966, and 2 in July 1967. O.W.S. on outward and return journeys from and to Greenock in June and

July however were reporting fair numbers between the coast and 15 degrees West. No doubt the breeding Kittiwakes have no need to forage further to seaward to provide food for their young.

GREAT SHEARWATERS

Less than a dozen were counted at Juliet between 1st June and 20th July 1967, but by October a great surge of these birds had occurred, 3,782 counted between October 2-23. From previous years it seems clear that the first arrivals occur in August and increase until the end of October, 203 in September 1965, and in 1966, 1 in July, 836 in August, 1,755 in September, and 4,426 in October. SOOTY SHEARWATERS. Only 2 were recorded in July, nil in October 1967, and this compares with minimal numbers of 2 in September/October 1965, and 24 from July to October 1966. MANX SHEARWATERS. These clearly arrive in the area in April and although they had not appeared by 11th April in 1967, 38 were counted during April 1965, and 43 during April 1966, which seems to confirm this. Numbers, however, are not great.

STORM-PETRELS

Specific identification is too uncertain to be precise. In 1967 none had appeared until October when 63 were counted apparently not Leach's. In September and October 1966 a concentration of 350 birds kept close around Weather Ships, following in the wake and keeping in flocks. One onboard identified as Wilson's. It seems probable that the majority were Wilson's.

SKUAS

Juliet was not manned during May or August 1967, but once again it was in May 1964 that Great, 17, Pomarine, 39, Arctic, 6, and Long-tailed Skuas, 38, were passing through and a small number observed in April 1966, including 55 Great Skuas. The southward passage was missed but in 1966 was evident in the latter half of August and September, a total of 45 Great, 19 Pom, 14 Arctic, and 6 Long-tailed Skuas being counted.

GULLS

Small numbers of Great, Lesser Black-backed and Herring Gulls are usually around ships at Juliet on most months in the year, often totally absent in July.

TERNS

Very few have been seen but in 1966 there was some indication that 'Comic' terns were passing through in August and September, 10 counted in August and 4 in September.

AUKS

Razorbills, Guillemots and Puffins have not been recorded. On one notable occasion in April 1966 124 Little Auks were counted, the only occasion over the 3 years in which they have been seen.

STATION KILO 45°N, 16°W

This is an interesting station lying some 450 miles south of Juliet and 900 miles south of India.

FULMAR PETRELS AND KITTIWAKES

In 1967 only one Fulmar was recorded in March/April, 136 in September/October and 350 in November/December. In 1966 only 15 were counted in December/January and 2 in July/August 1965. From other sea passage returns 45 degrees North appears to be very near the present southern range of Fulmars. Kittiwakes are more frequent in the Autumn and Winter, over 1,000 per month, average 45 per day counted in December/January 1965, 1 per day in March and 2 per day in April, 5 per day in October (total in one month 91) in 1967.

SKUAS

We have had no ships on the station in May or June, but in 1967 30 Great Skuas were recorded between March 25th and April 17th, no doubt working their way northwards when in the same months numbers have increased at 52 degrees North both in 1965 and 1966, and somewhat later in May at 59°N. It is however not until mid-October that the southward passage of the Skuas appears to reach its climax at Kilo. In 1967 we find 13 Great, 47 Pom and 2 Arctic Skuas reported although 7 Arctic Skuas had been recorded earlier in the month together with 6 Long-tailed Skuas. One unusual record of 140 Great Skuas, an average of 6 per day occurred however between 27th December 1965, and 20th January 1966.

GREAT SHEARWATERS

In 1967 considerable numbers were recorded in late September, 60, and October, 206. Cory's Shearwaters are present certainly from July to October in lesser numbers, and quite probably in other Spring/Summer months when O.W.S. have not been on station. No Sooty Shearwaters have been recorded.

STORM-PETRELS

In 1967, 545 Wilson's Storm-Petrels appeared at Kilo between September 19th and October 30th and 132 were counted in 1965 between July 17th and August 5th.

GULLS

In the autumn and winter months an occasional Great, Lesser-Black backed and Herring Gull find the Weather Ships.

ALL STATIONS

GANNETS

Gannets have been observed at all stations irregularly and in small numbers at all seasons tending to increase between April and July with a larger proportion of immatures in May and June.

SUMMARY OF EVIDENCE

FULMAR PETRELS

Occur in very large numbers at sea at all stations, monthly counts of 1,000 to 2,000, at all seasons of the year except at Kilo which appears to be near the southern limit of their range. Numbers do not diminish during the breeding season.

KITTIWAKES

In large numbers at sea, but generally speaking only half as numerous at Fulmars, sometimes up to 1,000 per month counted, from December to May. Kittiwakes, however, desert all areas during June and July, and there is a larger proportion of immatures remaining at sea between April and June.

SKUAS

There is marked evidence that the northward passage of Skuas at 62°N , 33°W occurs during May and has terminated by mid-June. In this area Pomarine and Long-tailed Skuas (sea reports off east coast of U.S.A. support the passage of numbers of Long-tailed Skuas northward bound), predominate. The passage occurs slightly earlier in late April and May at India and Juliet where Great Skuas predominate, with fewer Pomarine and Arctic and very few Long-tailed Skuas. The southward migration occurs at Alpha and India from mid-August to mid-September, at Juliet in September and early October, and at Kilo perhaps a trifle later from mid-September until the end of October. At these three latter stations Great Skuas predominate, with Arctic and Pomarine taking second and third places.

GREAT SHEARWATERS

A certain number reach Alpha by July and August and it seems that these may move to join others at India which appear in August and probably rendezvous with the large concentrations which have appeared at Juliet in October. Further south at Kilo Great Shearwaters certainly appear in September increasing in numbers in October. We know from our sea passage reports that they are still present northwest of the Azores in November (together with large numbers of Cory's Shearwaters).

CORY'S SHEARWATERS

No sightings north of Kilo.

MANX SHEARWATERS

None at Kilo but small numbers have been recorded each month from April to May at India, 59°N , 19°W increasing in August and September. In April 1965 there were a considerable number at Juliet, $52^{\circ}30'\text{N}$, 20°W . It seems that Manx Shearwaters do not penetrate generally so far as the northerly stations. We have no sightings from Kilo, 45°N , 16°W between August and October when they might have been expected.

SOOTY SHEARWATERS

Only 1 or 2 seem to penetrate as far north as Alpha, $62^{\circ}30'\text{N}$, 33°W by July/August, occasionally; quite small numbers regularly at India, 59°N 19°W in August/September, totals of less than 10 seen in a month. Similar small numbers have been seen between July and October at Juliet, $52^{\circ}30'\text{N}$, 20°W , and we have no sightings from Kilo. There is little evidence except for the paucity of numbers.

STORM-PETRELS

The difficulty of identification of species in the poor weather which often exists in northern stations leaves little to work on. In all three years we have only 1 record of a Storm-Petrel at Alpha, a Leach's. A few odd Storm-Petrels have been seen at India in August/September, and it seems certain that numbers of Wilson's Storm-Petrels reach Juliet between August and October. Furthest south at Kilo we have proof of considerable numbers of Wilson's between August and the end of October.

TERNS

Identification of species at sea is extremely difficult and our only positive evidence is of a southward passage of Arctic Terns both through Alpha and India during August.

LANDBIRDS AT THE OCEAN WEATHER STATIONS

After three years of studying the records of landbirds observed at these stations one could make a fairly accurate forecast of the principal species and dates of passage which would be recorded on the following year. These minor "observatories" need no mist nets or Heligoland traps to secure their birds. The same bleak story repeats itself; so many of the passerines fall onboard from mere exhaustion, so weary that they are unable to take off of their own accord, and frequently die in spite of the best efforts of our observers. It is probable that others observed onboard which then disappear may also have died. On the whole more appear to meet this fate during the northward passage than during the return, and these may well have covered a longer distance over the sea before finding the shelter of any previous landfall. It is of course impossible to provide their natural food except in the case of seed eaters where Griffiths has proved the value of taking some bags of mixed birdseed and insect preparation in his locker, and has also sheltered several birds in suitable cages before release. It is remarkable what some species will accept and a Redwing made captive on 13th November and released in the Clyde area four weeks later apparently thrived on fish, meat, bread and apple. The waders, Dunlin, Twinstone and the like will take to chopped raw or tinned fish, bacon fat and soaked bread, and the raptors, if they find no small bird to pounce upon, are easy to feed on raw meat. An Eider Duck ate cheese, cake, duff and bacon.

NORTHWARD MIGRATION

The great northward passage on all the three northern stations appears at its height in May, with an indication that Snow Buntings pass through in late March and April. At all these stations, Wheatears, many of the Greenland species as reported, are the most frequent arrivals. At Alpha, 62°30'N, 33°W, after Wheatears, Dunlins, Redwings, Turnstones and Redpolls were the most common. No Swallows or House Martins have been reported at Alpha as yet.

At India and Juliet, Meadow Pipits, Dunlin, Whimbrels and a few Swallows and House Martins have been recorded together with Snow Buntings.

SOUTHWARD PASSAGE

The southward passage at all stations extends from August until the end of October. At Alpha and India Twinstones are clearly passing through during August, a little later in September at Juliet. Wheatears are passing through all stations during August and September, and the few records of Snow Buntings have occurred in October. Single Merlins have been seen in May at Alpha 3 times and again in September/October at India 3 times and Juliet twice. We have records of one or two Red-necked Phalaropes in May at India and in August and October at Alpha and Juliet.

To the best of my knowledge none of our observers in the Ocean Weather Ships are qualified in ringing birds, but with the care and attention they give to the birds they handle I am strongly of the opinion that the qualification rule could certainly be relaxed in special cases such as these where I am convinced that, if provided with a booklet on the subject and tools for the job no harm would be done to the birds which are known to be active when released, and interesting information might well be forthcoming.

OCEAN WEATHER SHIPS STATIONS—
OBSERVATIONS OF LANDBIRDS
STATION ALPHA—62°30'N, 33°W

DATE	SPECIES	No.	REMARKS
JAN.	No landbirds reported.		
FEB.	No landbirds reported.		
MAR.	No landbirds reported.		
APR.	NOT ON STATION		
MAY			
3	Redwing (<i>Turdus musicus</i>)	3	Ship
4	Redpoll (<i>Carduelis flammea</i>)	10	Ship. 2dd. 4m, 2f. 1 caught fed on seed, released May 5
	Redwing	1	Ship. dd. Fed wet bread
5	Redwing	1	Ship
	Snow Bunting (<i>Plectrophenax nivalis</i>)	1	Ship
6	Wheatear (<i>Oenanthe oenanthe</i>)	6	Ship. 2dd. 5m, 1f
	Dunlin (<i>Calidris alpina</i>)	2x	Ship. Fed on fish
	Turnstone (<i>Arenaria interpres</i>)	2	Ship. Fed on fish
	Redwing	1	Ship
	Wheatear	1	Ship. 1m
7	Wheatear	4	Ship. 2m, 2f
	Meadow pipit (<i>Anthus pratensis</i>)	1	Ship
	Whimbrel (<i>Numenius phaeopus</i>)	1	Ship
	Turnstone	1	Ship. Fed on fish
9	Wheatear	3	Ship. 1dd. 2m, 1f
10-15	Wheatear	8	Ship. 7dd. 6m, 2f
16	Dunlin	1	Ship
21-23	Wheatear	4	Ship. 4dd. 2m, 1f
	Kestrel (<i>Falco tinnunculus</i>)	1	lf
	Dunlin	2	
	Turnstone	1	
25	Dunlin	1	
	Wheatear	3	Ship. 1m, 2f
28	Redpoll	1	Ship
JUNE	NOT ON STATION		
JULY	NOT ON STATION		
AUG.			
12	Red-necked Phalarope (<i>Phalaropus lobatus</i>)	1	
	Turnstone	1	
23	Turnstone	4	
25	Wheatear	1	Ship
	Turnstone	10	
26	Turnstone	1	
31	Dunlin	1	
SEPT.			
1	Wheatear	2	

STATION INDIA—59°N, 19°W

DATE	SPECIES	No.	REMARKS
JAN.	No landbirds reported		
FEB.	No landbirds reported		
MAR.	No landbirds reported		
APR.			
20	Snow Bunting (<i>Plectrophenax nivalis</i>)	1	Ship
MAY			
1	Ringed Plover (<i>Charadrius hiaticula</i>)	1	Ship
5	Redwing (<i>Turdus musicus</i>)	1	
6	Meadow Pipit (<i>Anthus pratensis</i>)	2x	Ship
	Wheatear (<i>Oenanthe oenanthe</i>)	1x	Ship. 1dd.
	Dunlin (<i>Calidris alpina</i>)	2x	Ship. 2dd.
	Whimbrel (<i>Numenius phaeopus</i>)	1	
	Grey Phalarope (<i>Phalaropus fulicarius</i>)	1	Ship
7	Wheatear	3x	Ship. 3dd.
8	Whimbrel	1x	Ship
	Wheatear	5	Ship. All landed again on relief ship, May 9 in 58°N, 16°W
	White Wagtail (<i>Motacilla a. alba</i>)	1	Ship. Took food
	Meadow Pipit	1	Ship. Landed again on relief ship.
	Merlin (<i>Falco columbarius</i>)	1	Ship
9	Greylag Goose (<i>Anser anser</i>)	1	
10	Wheatear	10	Ship. 1dd.
	Meadow Pipit	1	Ship. 1dd.
13	Wheatear	7	Ship
	Dunlin	1	Ship. Summer plumage
15	Dunlin	11	Ship
	Turnstone (<i>Arenaria interfores</i>)	1	Ship
	Meadow Pipit	1	Ship
	Wheatear	3	Ship
16	Redshank (<i>Tringa totanus</i>)	1	Ship dir N
17	Whimbrel	1	dir NW
	Wheatear	1	dir N
18	Swallow (<i>Hirundo rustica</i>)	1	dir N
19	Swallow	1	dir N
	Dunlin	1	
21-22	Swallow	2	Ship
	Wheatear	1	Ship
23-24	Wheatear	1	
	Meadow Pipit	1	
	Dunlin	1	
	Swallow	1	
26	Red-necked Phalarope (<i>Phalaropus lobatus</i>)	3	dir N
	Oyster Catcher (<i>Haematopus ostralegus</i>)	1	dir N
	House Martin (<i>Delichon hibica</i>)	1	Ship
27-29	Wheatear	6	
	Dunlin	1	
30	Wheatear	2	Ship
JULY			
13-18	Turnstone	1	Winter plumage
	Redshank	1	Ship
AUG.			
13	Turnstone	7	2 Ship. All winter plumage. 1 onboard until Sept. 5. Fed
	Wheatear	1	Ship
30	Turnstone	4	
SEPT.			
2	Dunlin	2	
NOV.			
13	Redwing (<i>Turdus musicus</i>)	1	Ship. Fed on fish, meat, bread, apple. Caught and released after 4 weeks in Clyde

REPORTS OF LANDBIRDS AT SEA

Summarised by Captain G. S. Tuck, D.S.O., R.N.

This report covers the period intervening between the previous report contained in volume 19, 1967, and information received up to 1st August, 1968. The table includes ALL positively identified reports received in areas other than the Mediterranean, but excludes the landbirds reported by the British Ocean Weather Ships published separately.

In all the reports cover 29 sea passages.

In some previous summaries I have omitted certain well-known species which might not have served to throw new information on landbird movements over the sea, and in this connection I have still used discretion in the case of the Mediterranean.

R.N.B.W.S. is, however, I believe the only society in a position to collect any comprehensive global pattern of landbird sightings over the seas, and no reports from the painstaking work of our members should be omitted. Though a full tabulated statement may evoke but passing interest to some readers, yet for others the details when collated with former reports may provide some hitherto unsuspected link in landbird migratory movements over the sea.

There are some others indeed from whom I have received enquiries as to what landbirds may be seen during an ocean voyage! Truly the sixty-four-thousand dollar question! But past records have provided a little general information which I have attempted to indicate in this issue.

In the tables which follow the letter 'd' followed by a compass direction, e.g. d.N.W., indicates the direction of observed flight on departure where noted. An asterisk in the remarks column indicates that a full examination form of the bird taken in the hand has been rendered.

THE MEDITERRANEAN SEA

Extracts from "Some observations and notes on bird life in the Central Mediterranean between 25th March and 21st May, 1968" provided by Captain D. K. A. Lamb, M.V. *Heythrop*.

The report covers a period when great numbers of migrating landbirds are passing northwards, and when small invasions occurred it was not possible to identify all.

At 0515 hours on 26th March when north of Tobruk, 32°05'N, 24°02'E, a flight of 30 Herons (*Ardea cinerea*) circled the ship, several making unsuccessful attempts to land. All departed northwards. Later during the night a 'fall' of several hundred small birds invaded the ship including very many Grey Wagtails (*Motacilla cinerea*). From 9th to 13th April the ship was operating in approximate position 34°30'N, 20°45'E, and during this period Turtle Doves (*Streptopelia turtur*) were continually arriving and resting onboard. On 13th April besides Turtle Doves several Yellow Wagtails (*Motacilla flava*) were onboard, and

OCEAN STATION INDIA—50°N 10°W OCEAN STATION¹ PU

	OCEAN STATION ALPHA—62°30'N, 33°W 300 miles W x S Iceland						OCEAN STATION INDIA—59°N, 19°W 250 miles S of Iceland						OCEAN STATION JULIET—52°30'N, 20°W 360 miles W x S Ireland						OCEAN STATION KILO—45°N, 16°W 350 miles WNW Cape Finisterre					
	Jan. 1-22	Jan. 23- Feb. 17	May 5-28	July 20- Aug. 7	Aug. 11- Sept. 3	Nov. 16- Dec. 8	Jan. 6-27	Jan 30- Feb 23	Apr 15- May 8	May 10- June 2	June 29- July 23	Aug 17- Sept 8	Nov 28- Dec 13 Short Period	Feb 22- Mar 17	Mar 21- Apr 11	June 1- 15 Short Period	June 26- July 20	Oct 2- 23	Mar 1- 20	Mar 25- Apr 17	Sept 19- Oct 3 Short Period	Oct 4- 30	Nov 28- Dec 13 Short Period	
GREAT SHEARWATER	—	—	—	27	284 dir SE	—	—	—	—	—	31	23	—	—	—	3	8	3782* av 172 d	—	—	60	206	—	
CORY'S SHEARWATER	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	—	—	—	—	22	—	
SOOTY SHEARWATER	—	—	—	—	3	—	—	—	—	—	1	20	—	—	—	—	2	—	—	—	—	—	—	
MANX SHEARWATER	—	—	—	—	1	—	—	—	9	19	17	22	—	4	—	—	—	—	—	—	1	—	—	
WILSON'S STORM-PETREL	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9	—	—	—	266 av 19 d	279 av 10 d	—	
LEACH'S STORM-PETREL	—	—	—	—	—	—	—	—	—	—	—	8	—	—	—	—	—	63	—	—	—	28	—	
BRITISH STORM-PETREL	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—	—	—	—	—	
FULMAR PETREL	1442* av 65 d	631(11B) av 20 d	1800* av 75 d	2648* av 130 d	2090*(9B) av 90 d	1735* av 75 d	2130*(146B) av 100 d	616 av 24 d	3448* av 150d	2356* av 94 d	1525† av 60 d	1415† av 58 d	350	7	21	460 av 30 d	1080† av 43 d	1257† av 57 d	—	1	3	133	—	
GANNET	1	5	12(a)	7	2	—	14(a)	7(a)	14	45(17a 28b)	13(11b)	19(2i)	—	1	2	7	7	1	—	2	—	12	—	
CORMORANT	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
RED-NECKED PHALAROPE	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
GREY PHALAROPE	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
GREAT SKUA	—	—	—	3	12	—	—	1	34	49	10	14	—	16	18	1	7	15	11	30	3	13	—	
POM SKUA	—	—	26 (pale phase) dir N	—	2	—	—	—	3	47(45 pale)	6(i)	—	—	—	1	—	—	—	—	—	2	47	—	
ARCTIC SKUA	—	—	—	—	8	—	—	—	6(5 dark)	15(dark)	—	19	—	—	—	1	1	3	—	—	7	2	—	
LONG-TAILED SKUA	—	—	—	—	10	—	—	—	—	2	1	3	—	—	—	8	—	2	—	—	6	—	—	
G.B.B. GULL	7	62 av 2 d	10(i)	2	19(i)	—	11(4i)	33(20i)	41(27i)	23(17i)	—	29	8	21(7i)	—	—	—	10	8(3i)	—	—	1	—	
L.B.B. GULL	—	—	60(11i) av 2 d	—	—	—	3(i)	17(9i)	260	235(109i)	6	30(a & i)	—	—	8	6	1	—	—	8	27	7	—	
HERRING GULL	—	5	2	—	—	—	1	1	21	4(i)	2	—	3	1	—	—	—	—	1	—	1	5	—	
IVORY GULL	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
GLAUCOUS GULL	—	6	1	1	—	2	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	
ICELAND GULL	—	19 (av 1 d)	7(3i)	—	—	1	4(a)	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	
KITTIWAKE	144 av 6 d	558 av 18 d	790 av 33 d	38 av 2 d	247(a) av 10 d	175(a) av 7 d	1325*(5i) av 60 d	446 av 19 d	2555*(1000i) av 110 d	1024(400i) av 41 d	78 av 3 d	126(40i)	63	1996*(300i) av 80 d	1130 (62 i)	1	2	337(36i)	30(19i) av 1 d	48(5i) av 2 d	—	91(51i)	—	
COMMON GULL	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
BLACK-HEADED GULL	—	—	2	—	—	—	—	—	21(2i)	47(36i)	—	—	1	—	—	—	—	—	—	—	—	1	—	
LITTLE GULL	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	
SABINE'S GULL	—	—	—	—	1	—	1	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	
LITTLE AUK	—	1	—	15	1	—	—	—	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
RAZORBILL	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
COMMON GUILLEMOT	—	—	2	—	—	—	—	—	—	3	1	—	—	—	—	—	—	—	—	—	—	—	—	
BRUNNICK'S GUILLEMOT	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	
PUFFIN	—	—	—	—	11	—	—	—	—	3	4	—	—	—	—	—	—	—	—	1	—	—	—	
ARCTIC TERN	—	—	—	—	16	—	—	—	—	—	—	153 dir W av 5 d	—	—	—	—	—	2	—	—	—	1	—	
COMIC TERNS	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	—	

LAND BIRDS AT SEA—Continuation of Sea Swallow, 1967 to 1st July, 1968

NOTE—Land birds observed during excursions ashore while in port are omitted.

For any one observer's report the scientific title is only given for the first report of a species during any one passage.

PASSAGE, SHIP, OBSERVER	DATE	POSITION	SPECIES	REMARKS
S.S. 'Hinea'. Capt. P. W. G. Chilman	1966 13/15 June	KATTEGAT, GREAT BELT, OSLO FIORD, KIEL BAY Gothenburg approaches	Sev 100 Eider Duck (<i>Somateria mollissima</i>)	Females with young in groups. Only 10 males seen.
	15 June	Great Belt	80+ Eider Duck, 6 Lapwing (<i>Vanellus vanellus</i>)	
	17 June	Stockholm Fiord	1000+ Eider Duck	In outer Fiord. All females and young—No males seen. Mostly males. Wing patches and red feet noticed.
			50+ Tufted Duck (<i>Aythya fuligula</i>) 12 Velvet Scoter (<i>Melanitta fusca</i>) 4 Goosanders (<i>Mergus merganser</i>) 212 Mute Swans (<i>Cygnus olor</i>) 2 Mallard (<i>Smas platyrhynchos</i>)	In groups.
	19 June		Est 2000 Eider Duck, 23 Tufted Duck, 75 Velvet Scoter, 4 Goosander, 200 Mute Swans, 3 Oyster Catcher (<i>Haemotopus ostrrelagus</i>)	One raft 50 male Eiders off Fiord entr.
	21 June	Kiel Bay	32 Eider Duck	10 male, 22 female.
	22/25 June	Kiel Canal considered ashore!		
	1966	EASTERN NORTH ATLANTIC—EAST OF 30°W		
Havre to Cape Verde Islands.	8 May	36°56'N, 13°32'W. W of Cape St. Vincent	2 Turtle Doves (<i>Streptopelia turtur</i>), 1 Swallow (<i>Hirundo rustica</i>)	A marked dearth of usual migrants.
S.S. "Hinea." Capt. P. W. G. Chilman	9-11 May	32°N, 16°32'W to 22°17'N, 22°09'W	12 Swallows, 11 House Martins (<i>Delichon urbica</i>)	Perched on trees.
	22 May	Bonny River, Nigeria. 04°N, 07°E. 3' below Port Harcourt	30 Vulturine Fish Eagles (<i>Gypohierax angolensis</i>) 4 Great White Herons (<i>Casmerodius albus</i>) 1 Giant Kingfisher (<i>Megaceryle maxima</i>) 3 Pied Kingfishers (<i>Ceryle rudis</i>) 20 Hammerhead (<i>Scopus umbretta</i>) 100+ Long-tailed Widow Birds (<i>Diatropura procne</i>) 3 Grey Herons (<i>Ardea cinerea</i>)	Swamp land.
	23 May		100+ Little Egrets (<i>Egretta garzetta</i>), 20 Great White Herons, 100+ Hammerheads, 4 Pied Kingfishers, 1 African Darter (<i>Anhinga rufa</i>), 1 Malachite Kingfisher (<i>Corythornis cristata</i>)	Swamp full of waders too distant to identify.
Okrika, Nigeria to Rotterdam.	29 May	12°36'N, 18°02'W. W of Gambia	1 Swallow	
S.S. "Hinea." Capt. P. W. G. Chilman	31 May	24°48'N, 17°01'W. 80' NW Spanish Sahara	1 Rock Dove (<i>Columba livia</i>)	Landed frequently on ship.
	3 June	37°30'N, 12°02' W. W of Cape St. Vincent	1 Sari's Warbler (<i>Locustella luscinioides</i>)	Examined in hand.
		40°07'N, 10°51'W. W of Portugal	1 Hobby (<i>Falco subbutes</i>)	Onboard—stayed overnight.
Venezuela to Liverpool, S.S. "Hinea."	4 June	45°N. 08°W	1 Swallow, 1 Yellow Wagtail (<i>Motacilla flava</i>)	Onboard, ate salmon sandwich!
Capt. P. W. G. Chilman	5 Sept	47°02'N, 22°16'W	2 Turnstone (<i>Arenaria interpres</i>) d.S.	Winter plumage.
	6 Sept	49°01'N, 17°30'W	1 Turnstone	
Plymouth to Bermuda. H.M.S. "Tartar"	1967			
Lt. Cdr. J. A. Donaldson	28 April	45°15'N, 13°55'W. 300'W x N Cape Finisterre	1 Curlew (<i>Numenius arquata</i>)	
Halifax, N.S. to Liverpool. S.S. "Kenuta"	2 Nov	54°31'N, 22°W	1 Starling (<i>Sturnus vulgaris</i>), 1 Waxwing (<i>Bombicilla garrulus</i>) d.S.	
2nd Off. S. E. Chapman	3 Nov	55°09'N, 11°07'W	1 Redwing (<i>Turdus musicus</i>)	
	1968			COMPARE WITH O.W.S. OBSERVATIONS AT STATION "INDIA", 59°N, 19°W.
Survey of Lousy Bank		General Area 60°N, 17°W		Onboard.
H.M.S. "Hecla." Lt. Cdr. R. A. Wilson				Separate groups.
	22 April	Midway St. Kilda and Iceland	1 Redshank	
	23 April	61°45'N, 15°W. Midway Rockall and Iceland	17 Greylag Geese (<i>Anser anser</i>) d.NW.	
	25 April	60°27'N, 15°30'W	4 Snow Buntings (<i>Plectrophenax nivalis</i>), d.N.	3 onboard.
	26 April	60°17'N, 16°40'W	9 Meadow Pipits (<i>Anthus pratensis</i>)	
	27 April	60°N, 18°W	1 White Wagtail (<i>Motacilla a. alba</i>), 3 Golden Plover (<i>Charadris apricarius</i>)	
	29 April	59°51'N, 17°W	1 Redwing (<i>Turdus musicus</i>), 2 Wheatear (<i>Oenanthe oenanthe</i>)	d. NW.
	30 April		30 Barnacle Geese (<i>Branta leucopsis</i>) d.N., 1 Redwing	20 yards from ship. Flying over wave tops in teeth of strong northerly wind
	6/7 May		6 Geese sp. d.NW., 1 Wheatear, d.NW. 1 Redshank (<i>Tringa Totanus</i>), d.NW.	Unidentified.

LAND BIRDS AT SEA—Continuation of Sea Swallow, 1967 to 1st July, 1968

NOTE—Land birds observed during excursions ashore while in port are omitted.

For any one observer's report the scientific title is only given for the first report of a species during any one passage.

PASSAGE, SHIP, OBSERVER	DATE	POSITION	SPECIES	REMARKS
Labaul to Kobe, via Guani I.V. Chekiang, 2nd Off. D. M. Simpson	1967	EAST INDIES		
	10 Oct	21°43'N, 141°20'E S of Io Jima. NW of Marianas	80 Barn Swallows (<i>Hirundo rustica</i>)	3 flights onboard throughout day. Feeding on Bugs about cargo of copra.
	9 Nov	28°N, 123°30'E. 100' off China coast	12 Rufous Turtle Doves (<i>Streptopelia orientalis</i>) 1 Grey Starling (<i>Sturnus cineraceus</i>) 3 Brambling (<i>Fringilla montipringilla</i>)	Onboard all day. Tame. Adult male. Onboard all day. Unmistakable. 1 male, 2 females. Not listed in "Hong Kong Birds". Onboard.
Hong Kong to Keeling, via E coast Taiwan S.S. Volvatella, Capt. P. W. G. Chilman	19 Nov	22°12'N, 115°07'E. 45' E Hong Kong	2 White-eye (<i>Zosterops japonica</i>)	Onboard from Hong Kong—very tame.
	20 Nov	21°50'N, 119°58'E. 45' W of Taiwan	9 Tree Sparrows (<i>Passer montanus</i>)	Onboard.
	21 Nov	Off Keeling harbour	2 of the Tree Sparrows, 1 Rufous Turtle Dove	Onboard.
	5 Dec	27°28'N, 130°23'E. Ryukyu Is 55' NW	1 Rustic Bunting (<i>Eberiza rustica</i>)	Onboard.*
Kobe to Bangkok, via Luzon Str.	1968			
	21 April	31°10'N, 132°25'E	1 Wagtail Sp	Onboard. Description indicates Grey Wagtail, common in Japan. Colour photo.
	23 April	22°N, 122°59'E	1 Mongolian Sand Plover (<i>Charadrius mongolus</i>) d.N 1 Barn Swallow, d.SW	Colour photo.
	24 April	17°50'N, 117°20'E. 170' W Luzon	1 Scops Owl (<i>Otus scops</i>)	
	25/26 April	14°30'N, 113°45'E. 250' E South Vietnam	18 Barn Swallows, d.N	
	27 April	9°N, 103°14'E. Gulf of Thailand	1 Little Green Heron (<i>Butorides striatus</i>) 1 Blue-headed Wagtail (<i>Motacilla f. flava</i>) 1 Blue-winged Pitta (<i>Pitta nympha</i>)	Onboard. Colour photo.*
	28 April	13°10'N, 100°35'E	1 Grey Wagtail (<i>Motacilla cinerea</i>)	Onboard.
Bangkok to Hong Kong	12 March	19°05'N, 113°48'E	4 Barn Swallows, d.E	Colour photo.
	16 March	21°50'N, 120°E. 30' off Taiwan	2 White-faced Wagtails (<i>Motacilla alba leucopsis</i>)	
	23 March	31°24'N, 129°E		
	1967	PERSIAN GULF		
	19 July	Off Khor Musa Lt Vessel, Iran	3 Swallows, 2 Crab Plover (<i>Dromas ardeola</i>)	
S.S. Volvatella, Capt. P. W. G. Chilman	21 July	Bandak Makshahr	3 Swallows, 6 House Sparrows (<i>Passer domesticus</i>) 1 Indian Reef Heron (<i>Demegretta asha</i>) 2 Indian Reef Heron 30 Crab Plover	
	22 July	29°50'W, 49°13'E	9 Oystercatcher (<i>Haematopus ostralogus</i>) 1 Hoopoe (<i>Upupa epops</i>) 1 Turtle Dove	
	1 Sept	25°39'N, 52°25'E. Off Halul Il.		
	1967	EASTERN NORTH PACIFIC		
	6 May	70°05'N, 78°41'W. S of Gulf of Panama	1 Egret Sp	Medium size. Pure white. Deep yellow bill.
Balboa to Buenaventura. S.S. 'Kenuta' 2nd Off. S. E. Chapman	14/15 Oct	5°20'N, 77°47'W 4°-5°N, 80°W	1 Northern Water Thrush (<i>Seirus noveboracensis</i>) 1 Blackburnian Warbler (<i>Dendroica fusca</i>) 1 Cliff Swallow (<i>Petrochelidon pyrrhonata</i>) 1 Chimney Swift (<i>Chaetura pelagica</i>) 1 Olive-backed Thrush (<i>Hylocichla ustulata</i>)	Onboard. Onboard. Caught onboard. Examined onboard.*
	16 Oct	Gulf of Panama		
	1967	EASTERN SOUTH PACIFIC		
	9 Oct	9°30'S, 110°30'W 960' Galapagos, 1020' Easter Island	1 Barn Swallow (<i>Hirundo rustica</i>)	Photo.
	10 Nov	10°53'N, 117°25'W	1 Bank Swallow—Sand Martin—(<i>Riparia riparia</i>)	Onboard.* Nearest land S tip lower California 845'NE.
S.S. Volvatella, Capt. P. W. G. Chilman	1968			
		9°14'S, 79°20'W 7°58'S, 80°11'W	1 Eared Dove (<i>Zenaidura auriculata</i>) 1 Troupial (<i>Icterus icterus</i>)	Onboard. Onboard.
S.S. Kenuta, 2nd Off. S. E. Chapman	1966	WESTERN NORTH ATLANTIC—WEST OF 30° WEST		
	27 Nov	30°22'N, 55°19'W. 600' SE Bermuda	1 Barn Swallow (<i>Hirundo rustica</i>)	Onboard.
	1967			
	9 March	47°42'N, 42°45'W	2 Starlings (<i>Sturnus vulgaris</i>)	Onboard.
S.S. Plagiola, Capt. P. W. G. Chilman	10 March	46°05'N, 38°44'W. Far out in Atlantic.	2 Starlings	Probably same. Rough sea, snow—Birds in good shape.

LAND BIRDS AT SEA—Continuation of Sea Swallow, 1967 to 1st July, 1968

NOTE—Land birds observed during excursions ashore while in port are omitted.

For any one observer's report the scientific title is only given for the first report of a species during any one passage.

PASSAGE, SHIP, OBSERVER	DATE	POSITION	SPECIES	REMARKS
	1967	WESTERN NORTH ATLANTIC—WEST OF 30° WEST (Continued)		
Liverpool to San Juan, Puerto Rico. S.S. Kenuta. 2nd Off. S. E. Chapman	24 Aug	29°N, 49°10'W. 800' ESE Bermuda	1 Yellow Warbler (<i>Dendroica petechia</i>)	Female—Onboard short time.
Halifax N.S. to Liverpool. S.S. Kenuta 2nd Off. S. E. Chapman	28 Oct	30° E Halifax	2 Myrtle Warblers (<i>Dendroica coronata</i>)	Onboard.
	29 Oct	45°49'N, 55°19'W	1 Starling	
	1 Nov	53°15'N, 31°W. Far out in Atlantic	1 Long-tailed Duck (<i>Clangula hyemalis</i>)	Landed on ship.
Le Havre to Montreal. S.S. Bleaverpine Capt. E. F. Aikman	8 Nov	46°13'N, 49°35'W. 150' E x S Cape Race	1 American Redstart (<i>Setophaga ruticilla</i>)	Confirmed National Museum, Ottawa.
	1968			
	21 May	290°09'N, 70°38'W	1 Semi-palmated Sandpiper (<i>Calidris pusilla</i>)	Onboard 36 hours.* Bermuda 365' NE. Bahamas 365' SW
	1966	EAST COAST U.S.A. AND CANADA		
New Jersey to Curacao S.S. Plagiola. Capt. P. W. G. Chilman	30 Oct	35°32'N, 72°22'W 200' SE Cape Charles, Va.	2 Golden-crowned Kinglets (<i>Regulus satrapa</i>) 1 Ruby-crowned Kinglet (<i>Regulo calendula</i>) 1 Mourning Dove (<i>Zenaidura macroura</i>) 12 Slate-coloured Junco (<i>Junco hyematus</i>) 10 White-crowned Sparrows (<i>Zonotrichia leucophrys</i>) 1 Magnolia Warbler	About ship all day.
	31 Oct	29°42'N, 70°58'W. 550' E Jacksonville	1 Magnolia Warbler, 9 Slate-coloured Junco, 6 White-crowned Sparrows	
Port Everglades, Fla. to New Jersey and return. Capt. P. W. G. Chilman	1 Nov	24°07'N, 69°34'W. 360' further South	1 Slate-coloured Junco, 1 White-crowned Sparrow	
	8 Nov	East of Port Everglades	1 Mourning Dove, 1 Rusty Blackbird (<i>Euphagus carolinus</i>)	
	12 Nov	38°31'N, 74°11'W. 50' W Delaware Bay	6 Slate-coloured Junco, 4 White-throated Sparrows, 2 White-crowned Sparrows, 1 Myrtle Warbler, 2 American Pipits (<i>Anthus spinoletta rubescens</i>), 1 American Robin (<i>Turdus migratorius</i>), 1 Starling	Fog.
	15 Nov	33°08'N, 78°03'W	1 Myrtle Warbler	
	16 Nov	60 miles off Savannah	1 Great Northern Divers	
	17 Nov	Savannah River	2 Great Northern Divers, 70+ Turkey Vultures, 1 Belted Kingfisher, 16 Fish Crows (<i>Corvus ossifragus</i>), 2 Great Blue Herons (<i>Ardea herodias</i>), 7 American Egrets (<i>Casmerodius albus egretta</i>), 200 Red-winged Blackbirds (<i>Agelaius phoeniceus</i>)	
	1967			
	5 Jan	Fall River, Massachusetts	Est 100 Velvet Scoter (<i>Melanitta fusca</i>)	
	8 Jan	Long Island Sound	400-500 Velvet Scoter	
	21/22 Jan	Chesapeake Bay	200 Great Northern Divers, 30 Surf Scoters (<i>Melanitta perspicillata</i>) 1000+ Long-tailed Duck (<i>Clangula hyemalis</i>)	
	20 Feb	Sea to Savannah	48 Great Northern Divers, 88 Greater Scaup Duck (<i>Aythya marila americana</i>), 70 Fish Crows, 13 Turkey Vultures, 2 Hen Harriers (<i>Circus cyaneus</i>)	
Colombia to Halifax, N.S. S.S. Kenuta. 2nd Off. S. E. Chapman	15 Oct	4°14'N, 80°18'W	1 Cliff Swallow (<i>Petrochelidon pyrrhonota</i>)	Onboard.*
	22 Oct	26°40'N, 71°36'W	1 Starling	
	25 Oct	42°28'N, 64°46'W	2 Myrtle Warblers	Onboard.
	1966	CARIBBEAN AREA		
S.S. Hinea. Capt. P. W. G. Chilman	15 July	Approaching Maracaibo, Venezuela	6 Caracara (<i>Caracara cheriway</i>)	Scavenging on beach.
	2 Aug	Schottegat, Curacao	12 Snowy Egret (<i>Egretta thula</i>)	
	10 Aug	Manzanillo Bay, Dominican Republic	50+ Little Blue Herons (<i>Florida caerulea</i>)	
	26 Aug	Gulf of Venezuela	5 Barn Swallows (<i>Hirundo rustica</i>) 2 Turkey Vultures (<i>Cathartes aura</i>)	
	5 Nov	16°12'N, 72°28'W	1 Belted Kingfisher (<i>Ceryle alcyon</i>) 1 Greater Antillean Nightjar (<i>Caprimulgus cubancensis</i>)	
	21 Nov	14°N, 68°20'W	4 Barn Swallows	
	1968			
S.S. Vibex. Capt. P. W. G. Chilman	3 June	10°26'N, 64°45'W	1 Yellow Warbler (<i>Dendroica petechia</i>)	Onboard.*

many birds were sighted appearing from the southeast flying northwards. Amongst these another Heron and four Grey Wagtails were onboard. During the next six days Swifts (*Apus apus*), Spotted Flycatcher (*Muscicapa striata*) and Yellowhammer (*Emberiza citrinella*) were seen, and at 0505 hours on 26th April up to 50 Turtle Doves appeared, at least 14 resting onboard before leaving northwards. Further sightings of House Martins (*Delichon urbica*), Swifts and Spotted Flycatchers occurred and on 4th May a flight of 12 Herons (*Ardea cinerea*) flying northeast. The report ends with more Turtle Doves, a Woodchat Shrike (*Lanius senator*) and Pied Flycatcher (*Muscicapa hypoleuca*) onboard at 35°N, 17°E on 19th May.

STATION JULIET—52°30'N. 20°W

DATE	SPECIES	No.	REMARKS
JAN.	NOT ON STATION		
FEB.	NOT ON STATION		
MAR.			
27	Snow Bunting (<i>Plectrophenax nivalis</i>)	1x	Ship. Fed on seed for 14 days. Trodden on by deck boy. dd.
28	Snow Bunting	1	
APR.			
6	Kestrel (<i>Falco tinnunculus</i>)	1	Ship. If. Fed on raw meat
OCT			
12	Wheatear (<i>Oenanthe oenanthe</i>)	1	Ship. 1m.
15	Redpoll (<i>Carduelis flammea</i>)	1	Ship. 1m.
16	Snow Bunting	1	Ship
	Purple Sandpiper (<i>Calidris maritima</i>)	1	Ship
21	Starling (<i>Sturnus vulgaris</i>)	1	Ship

STATION KILO—45°N. 16°W

MAR.			
19	Sand Martin (<i>Riparia riparia</i>)	1x	Ship. 1dd.
APR.			
17	Swallow (<i>Hirundo rustica</i>)	1x	Ship. 1dd.
OCT.			
8	Red-necked Phalarope (<i>Phalaropus lobatus</i>)	1	
10	Red-necked Phalarope	1	
22	Whitethroat (<i>Sylvia communis</i>)	1	
30	Grey Phalarope (<i>Phalaropus fulicarius</i>)	1	
	Snow Bunting (<i>Plectrophena nivalis</i>)	1	

LEGEND

Ship = onboard ship
 m = male
 f = female
 dd = died onboard
 x = examination form completed
 dir N etc. = departed toward North etc.
 Scientific title quoted on 1st occasion only
 for each station

EXTRACTS FROM THE METEOROLOGICAL LOGS OF BRITISH
MERCHANT SHIPS

Summarised by CAPTAIN G. S. TUCK, D.S.O., R.N.

The following reports extracted from the Meteorological Logs by those observers who are not members of R.N.B.W.S. are recorded separately in this section. A number of these reports now include detailed remarks and sketches both in colour and pen and ink and I have taken the liberty of including certain of the original remarks. Where the identification is considered evident I have added the letter 'P.' in other cases my comments in brackets. Both sea and land birds are included.

WESTERN NORTH ATLANTIC—West of 30° W.

- 1966 m.v. 'Hertford', New Zealand Shipping Co. Ltd., Capt. H. C. R. Dell. Observers Capt. Dell and 3rd Off. E. Cunnak, 42° 25' N. 21° 40' W., about 350 miles N.E. of Azores. One 'Owl-like' Bird. "It was light brown in colour with white mottling and a white stripe on upper and lower sides of wings. Approximately 12 ins long with 15–20 inch wing span, and had typical flat broad face of the owl; possibly a Tawny Owl. Vessel carried 16 horses on the after deck in boxes affording shelter". [The suggestion seems probable as a Tawny Owl shows white patches on its sea scapulars and wing coverts].
- 1967 m.v. 'Ruahine', New Zealand Shipping Co. Ltd., Capt. R. G. Hollingdale. 20th–22nd October. 34° N. 62° W to 42° 46' W, from approx 200 miles N.E. of Bermuda to 600 miles S.E. of Cape Race. Several American Redstarts (*Setophaga ruticilla*). P. "Several alighting onboard, one even momentarily settled on Quarter-master's head in the wheel house. They did not appear to be tired when resting onboard." [The birds took assisted passage for 800 miles in the opposite direction to their presumed migration route—see Capt. Ackrain's report under landbird section.]
- 1967 m.v. 'Explorer', T. and J. Harrison Ltd., Capt. H. P. Roberts, Observer 3rd Off. H. R. Mason. 25th March. 29° 32' N, 41° 58' W, 850 miles from nearest land. 1 Swallow (*Hirundo rustica*). P.

GULF OF ADEN, PERSIAN GULF, RED SEA.

- 1967 m.v. 'Treneglos', Hain-Nowise Ltd., Capt. A. Joslin. 22nd April. 12° 18' N, 48° 54' E, Gulf of Aden. 1 Grey-hooded Kingfisher (*Pseudhalcyon pallidiventris*). P. Coloured sketch as it sat under No. 2 derrick.
- 1967 s.s. 'Venassa', Shell Tankers Ltd., Capt. C. R. Kerr. Persian Gulf. Invasion of ? Black Terns – see 'Short Notes'.
- 1967 m.v. 'Port Wellington', Port Line Ltd., Capt. R. Holmes. Observers 2nd Off. K. Spiers and Apprentice C. Howard. 16th March. 17° N, 41° E. Red Sea. 1 Hoopoe (*Upupa epops*). P. Coloured sketch.

NORTH PACIFIC EAST

- 1967 m.v. 'Devon City', Sir William Reardon Smith and Sons, Capt. M. J. Higgins. Observers Chief Off. J. Cann and Bawa Kachoo, Seacunny. [Note: Earlier reports of Albatross sightings in the South Pacific have not been included].
22nd May, $49^{\circ} 32' \text{N}$, $175^{\circ} 50' \text{W}$, South of Aleutian Islands, "Two probable Horned Puffins (*Fratercula corniculata*). Two unusual birds were observed flying close alongside. Their plumage was black with the exception of the 'face' which was brilliant white. The beak was similar to a parrot and bright orange. Overall size about 6-9 inches with a plump or dumpy appearance. Very short wings and very 'high revving.' General impression that these may have been puffins."
17th June. $51^{\circ} 48' \text{N}$, $155^{\circ} 12' \text{W}$. Two birds similar to above.

SOUTH PACIFIC EAST

- 1967 m.v. 'Rangitane', New Zealand Shipping Co. Ltd. Capt. K. Barnett, R.D. 12th May, $6^{\circ} 36' \text{S}$, 113°W . "Two birds landed onboard at 0400 G.M.T. being recognised as a Grey Backed Storm-Petrel (*Garrodia sereis*) and an Elliot's Storm-Petrel (*Oceanites gracilin*). Having rested they both flew off at 1600 G.M.T." 13th May, $8^{\circ} 30' \text{S}$, $126^{\circ} 30' \text{W}$. Red-Tailed Tropic Brd (*Phaethon rubricauda*) onboard. P.

INDIAN OCEAN

- 1967 R.F.A. 'Tidereach'. Capt. C. G. D. Barker. [Observer 2nd Officer W. C. W. Price, R.N.B.W.S. Records already received and entered in Sea Swallow, 1967, are not included].
15th January, $00^{\circ} 57' \text{N}$, $84^{\circ} 30' \text{E}$. About 400 miles S.S.E. of Ceylon. one White-tailed Tropic Bird (*Phaethon lepturus*). In hand. P.
m.v. 'Calchas', Ocean Fleets Ltd. Capt. N. A. Joyce. 5th January. $8^{\circ} 20' \text{N}$, $71^{\circ} 39' \text{E}$. West of Laccadive Islands. One immature Cattle Egret (*Ardeola ibis*) onboard. Accurate description and sketch. P.

MOZAMBIQUE CHANNEL, OFF BEIRA

- 1967 R.F.A. 'Tidereach', 12th February. One Brown-winged or Bridled Tern (*Sterna anaethetus*). In hand P. 12th April. One Wilson's Storm-Petrel (*Oceanites oceanicus*). In hand P.

BLACK SEA

- 1966 6th November. m.v. 'Iron Age', Vallum Steamship Co. Ltd. Capt. K. L. Smith. Observers, Capt. Smith, 2nd Off. Phillips, 3rd Off. M. I Smith. 4 Long-eared owls (*Asio otus*). "Whilst in the Black Sea four Long-eared Owls accompanied the vessel until reaching the Dardenelles. Buff markings on underside of wings and light-coloured belly. General colour brown-grey. Approximate length of body 16 ins, wing span 28 ins." [Not proven].

MEDITERRANEAN SEA

- 1967 Reports have been received from four ships in the Mediterranean between 11th April and 14th May and give a good indication of the land birds which appear to be the more regular ship visitors amongst the migrants.

11th April-13th May. s.s. 'Livorno', Ellerman's Wilson Line Ltd. Captain R. Culberston reports. "Turtle Doves were the predominant birds, several being onboard at all times. Swallows were also present in small numbers and at least one House Martin but these soon perished due to lack of insect life on board. Numerous insect eating birds came onboard throughout but mostly died. Other seed eating birds did better but all fell a prey to a hawk onboard most of the time outward and homeward. I do not know whether it was the same bird, but it was of the same species. It always kept to the mast tables and fed well on the other birds. We also had an owl onboard." [2nd Off. J. M. Jarratt was the principal observer and provided 7 separate paintings and one pencil sketch of the owl. A study of these proves that amongst the birds were Hoopoe, Woodchat Shrike, Grey Wagtail, Blue or Ashy-headed Wagtail, Yellow Wagtail. The painting of the hawk referred to is closer to a Lanner Falcon and of the owl to a Scops Owl, but these cannot be confirmed.]

14th April. m.v. 'Trevalgan,' Hain and Nourse Ltd. Capt. W. S. Counsell. 40°N, 14°E. South of Naples. "Large numbers of swallows arrived an hour before sunset and stayed until daybreak." P.

30th April-3rd May. m.v. 'Port Pirie', Port Line Ltd. Capt. W. J. Williams. Numerous small birds on and around the vessel. Swallows were the most numerous, but Yellow Wagtails, Turtle Doves and House Martins were also identified." P.

4th May m.v. 'Crystal Sapphire', Sugar Line Ltd. Capt. J. R. L. Atkinson. 35°N, 19°E, W.S.W. of Crete. "A large flock of Swallows arrived onboard and remained overnight finding access to pipes and trunking in the accommodation, roosting quietly without fear. At daylight they set off in relays in a N.W. direction. P.

m.v. 'Achilles', Capt. R. C. Riseley, and m.v. 'Denbighshire', Capt. W. R. Willis, also reported Turtle Doves and Swallows on 20th April, and Swallows on 14th April.

CARRIER PIGEON REPORTS

1967 m.v. 'Rangitoto', New Zealand Shipping Co. Ltd. Capt. H. N. Lawson, R.D. 28th May, 47° 08'N, 8° 58'W. 0230 G.M.T. 846 on yellow ring and W99752. NV99 on silver ring. Bird left ship at 1500 G.M.T.

1967 m.v. 'Denbighshire', Ocean Fleets Ltd. Capt. W. R. Willis. 7th July, 46° 42'N, 6° 59'W. 1200 G.M.T. Ring No. NU64. M.57381. Also a green coloured ring.

AN UNUSUAL 'FALL' OF BIRDS ONBOARD.

One of the more remarkable 'falls' of small birds onboard ship occurred on 5th March, 1968, in the Straits of Messina, the more unusual perhaps because the ship was in such narrow waters with land only a few minutes flight away. Occurring as it did at 0200 hours local time in the dead of night and with no ornithologist acquainted with the different species we are left only with an impression of the magnitude of the invasion. Captain J. H. E. George, s.s. 'Mobile Enterprise' reports:—

"5th March, 1968, passing through Messina Straits about 0200 hours. A large number of birds alighted on the ship and settled anywhere near lights. The radar mast was covered, the platform yardarms, main aerial and even halyards on the boat deck where lights shone from portholes. Birds settled up to three deep on flat surfaces. Several got into the chart room, and looking at these we decided that they were probably starlings, being 4-5 inches in height when resting, dark brown with black and white speckled breasts and rather long beaks. At first signs of daylight the birds began to leave in clearly defined groups of about 100 to 300, seven or eight groups being observed, (Observer Mr. D. J. Read, 2nd Officer), between 0550 hrs and 0615 hrs. About 30 birds were found dead, presumably caused by flying into ship's structure, and several more were too weak to fly. The birds left in a northerly direction. Air temp.: at 0500 hrs, 50°F. Wind easterly force 3-4."

A DECLINE IN THE NUMBER OF GUANO-BIRDS IN PERU

by Lars-Erik Löfgren

Two photographs taken on one of the guano islands off the Peruvian coast, La Vieja, the first by the Chief Guard, Mr. Maximiliano Ormeño during the 1962-1963 breeding season, and the second during a visit in December, 1967, demonstrate the serious decline which is now occurring with these birds. Considerable reductions have of course occurred cyclically about every seven to nine years in the past, when the warm current "El Niño" moved south down the coast, but never before on this scale. Thus according to Mr. Ormeño as late as 1955-1956 there were 100 hectares of breeding birds, with rather more than three nests or some six or seven birds per square metre on average, and a production of guano reaching some 85,000 tons on La Vieja alone. There was then a heavy mortality presumably due to the onset of the warm current in 1957, but the population began to build up again until 1962-1963, since when there has not been a single good breeding season, and in some years most of the young have died before they ever fledged. In 1963-1964 there were still 35 hectares of birds which produced 10,000 tons of guano, but in the (northern) spring of 1967 two years production of guano only amounted to 7,000 tons. At the time of my visit there were only 2 hectares of birds, and only a quarter of these had nests, while the rest were just standing around.

Some of this reduction may have been due to the onset of the warm current in mid 1965, when there was apparently a high mortality, but this seems unlikely to be the whole explanation. Mr. Ormeño thought that it was probably largely due to overfishing of the anchoveta on which the birds feed. In the past fishing used to take place all the year, until in one year the country had the largest catch of fish of any in the world, but despite the introduction of a 3-4 month closed season in the northern summer the yield of fish is now decreasing, which suggests exhaustion of the stocks. This has been accompanied by a dramatic fall in the number of guano birds from some 40 million to about a tenth of that number, associated with failure to breed. The situation is now under study by the Corporacion Nacional de Fertilizantes, who are organising regular censuses to measure the decline.





SOME BIRD NOTES FROM NORTHERN CHILE, 1968

By SECOND OFFICER S. E. CHAPMAN.

In May this year I was fortunate enough to spend two weeks in Antofagasta. During this time, with the help of Adrian Brown, I explored much of the surrounding terrain looking for birds. Although being mid-winter and of course no birds nesting I had a most rewarding time.

Antofagasta lies almost on the Tropic of Capricorn—the sun is directly overhead here on December 21st – and enjoys a hot summer climate and is mild in winter. The days during my stay being sunny from early morning until dusk: the nights a little cooler and cloudless. Often clouds form in the afternoons, particularly over the mountains and a cool sea breeze blows from the Humboldt Current. Rainfall, in any measurable quantity, is very rare indeed.

Birdwatching around Antofagasta is unlike anything one would expect to find in Europe. In Chile for nearly 300 miles to the north and 200 miles to the south lies a virtually unbroken stretch of coastal desert – bare mountains, vast areas of broken rock, dust, dried salt-lakes, sand and solitude. Areas with not a moving creature or any sign of life and complete quietness; on a windless day the silence is almost incredible. Yet in parts of this wilderness are signs of plant life. Rain fell in September 1967 and small flowering plants miraculously sprang to life after being dormant for decades. Some of these still remain turning brown.

One may hopefully expect to see an Andean Condor *Vultur gryphus* in this wilderness particularly near the coast, but I was unlucky with this species. However, about ten miles from the town is a dump where the condemned imported cattle are burnt. There are remains of bones here and partly destroyed animals with attendant flies. These had attracted about fifty ground-tyrants, *Muscisaxicola* or Dormilonas, as they are known to the local people. The ground-tyrants (a genus of the huge New World family of Tyrant-flycatchers *Tyrannidae*) are long legged birds recalling the English flycatchers but here using a boulder or blackened bone as a perch when pursuing flies. On revisiting this spot a week later we found not a trace of these birds. Perhaps they had passed on northwards on their migration, or lack of sun had made feeding less attractive.

South of Antofagasta is Coloso Point – a sheer mountain falling into the sea and small rocky beaches that seem to attract little bird life. We found Snowy Egret *Egretta thula*, Black Oystercatcher *Haematopus ater* and Hudsonian Whimbrel *Numenius phaeopus hudsonicus* all feeding along the tide's edge, and a solitary Dormilona chasing flies over the sea weed.

The north part is rather different, the strip of coast between the mountains and the shore being much wider. North west of Antofagasta is Cerro Moreno Bay and the Rinconada, a vast plateau made entirely of compressed shells. Parts the seas are pounding and cliffs one hundred feet high are tumbling in massive blocks. The sand beach at the head if the bay has evidently been the scene of a wreck of prions *Pachyptila* for we collected thirty-one bodies amongst the dry sea

weed. Thirteen were later identified as the Slender-billed Prion *Pachyptila belcheri* and this must surely be the most northerly limit of this small sub-Antarctic breeding petrel. On the same beach we also found Silver-grey Petrel *Fulmarus glacialisoides*, Giant Petrel *Macronectes giganteus*, Sooty Shearwater *Puffinus griseus*, Humboldt Penguin *Spheniscus humboldti*, and numerous Guanay Cormorant *Phalacrocorax bougainvillei*. The strong sun and dry atmosphere here seems to preserve their bodies and the sand is littered with whitened bones.

At Santa Maria Island, a little further north, we saw five beautiful Black-faced Ibis *Theristicus caudatus*—a large wader with orange-yellow head and neck, black belly, grey wings and bright reddish legs. As soon as we tried to approach in the truck they took wing and departed across the bay giving their distinctive 'clunk-clunk' call. The Kentish Plover *Charadrius alexandrinus* however were much more friendly and permitted close approach on foot before scuttling away. On the rocks we found Peruvian Oystercatcher *Haematopus ostralegus* and Black Oystercatchers as well as migrant Hudsonian Whimbrel, Sanderling *Crocethia alba* and Turnstone *Arenaria interpres* from North America. Another visitor to the coast we spotted resting with Kelp Gulls *Larus dominicanus* were seventeen Andean Gulls *Larus seranus*; two of them retaining jet black heads of summer plumage. These gulls descend from the high Andes at the close of the breeding season and winter on the desert coast. Certain stretches of rocks were favoured by the Seaside Cicolodes *Cinclodes nigro-fumosus* or Churrete a dark thrush size bird with a flecked white bib and rufous wing bar. They hunt small marine animals in the weed and rock crevices skillfully dodging the waves.

Forty miles north is Chacaya a popular bathing beach in summer, but deserted at this season save for the local fishermen and the sea-birds. As well as the species of shore-birds already mentioned we identified Surf-birds *Aphriza virgata*, and Black Skimmer *Rynchops nigra*. The latter are ridiculous looking black and white creatures with over size bills especially adapted for skimming their food from the surface of the water whilst in flight. As we were packing up to leave the skimmers an Osprey *Pandion halliatus* passed low overhead winging its way steadily up the coast – perhaps a late migrant returning to the northern hemisphere.

S. E. CHAPMAN

Valparaiso – 17th May, 1968.

BIRD OBSERVATIONS IN THE WEDDELL SEA

By GEORGE EDWARDS

During the Southern Summer of 1964-65 I visited the South Orkney Islands while engaged on making a film for Anglia Television Company's series 'Survival,' later televised under the title 'Invasion South.'

Leaving Southampton on 22nd October, 1964, onboard R.R.S. 'John Biscoe' we proceeded to the Falkland Islands, and leaving Port Stanley on 27th November, set course for the South Orkney Islands. This account covers the periods at sea both on my outward journey to Signy Island in the South Orkneys, and the unexpectedly circuitous return journey mainly through the Weddell Sea, an additional 5,000 miles, of which more anon.

On leaving Port Stanley at mid-day the usual escort of King Shags accompanied the ship until 3 miles offshore. 6 Sooty Shearwaters and an increasing number of Black-browed Albatrosses were the only other species seen that day.

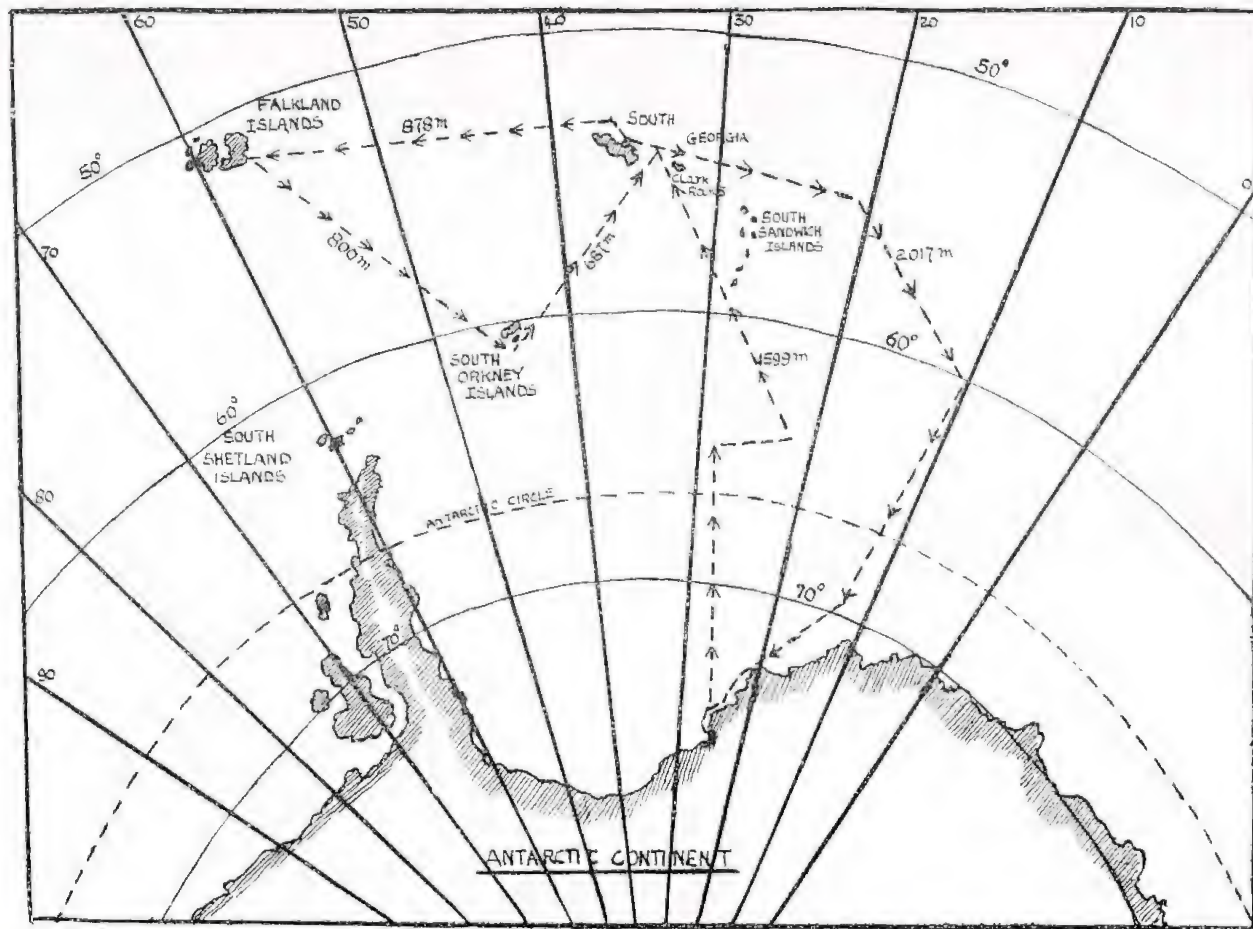
On 28th November the sea was exceedingly rough, observations being made for the most part through a single porthole! Wandering and Black-browed Albatrosses were around all day, about 6 of each species in view at a time, and 10 Giant Petrels flew astern for much of the day with 2 Pintado Petrels. Antarctic Fulmars took no notice of the ship, but in the evening the first Blue Petrel appeared together with 2 Light-mantled Sooty Albatrosses.

The 29th November, in a day of rough weather, sunshine and hail, the first Snow Petrels appeared, and at 0800 hours 15 Wilson's Storm-Petrels were following in the wake with 2 Light-mantled Sooty Albatrosses, Black-browed Mollymawks and Giant Petrels, being replaced by others, and only 4 Pintado Petrels were seen. Later in the day several Blue Petrels appeared but the most spectacular increase was in Dove Prions which breed in the South Orkneys. We were now 170 miles from the islands and large flocks of up to 100 or more each were encountered.

On 30th November Coronation and Inaccessible Islands hove in sight and at 0800 hrs the 'John Biscoe' proceeded through sheltered flat calm waters to Signy Island.

I remained at Signy Island film-making until 16th January, 1965, and as the 'John Biscoe' was not expected to return to Port Stanley for several weeks I transferred to the ice-ship 'Kista Dan' due to proceed to that farthest south B.A.S. Base at Halley Bay (75° 31'S, 26° 36'W).

The first section of this voyage from Signy Island to Grytvyken, South Georgia, found cloud covering the islands. On 17th January, with a heavy swell astern, some 20 Pintado Petrels and Wilson's Storm-Petrels were following throughout the day with a few Giant Petrels and a solitary Antarctic Skua and White-chinned Petrel. Unexpectedly, when the ship was 300 miles from the nearest land a Sheathbill flew aboard. I had seen Sheathbills alight on ships before but never so far from land; it soon flew off. From time to time 6 Light-mantled Sooty and 15 Black-browed Albatrosses were about and Prions in ones or twos. By



18th January the swell had subsided but icebergs were visible all day. Amongst some 20 Giant Petrels in normal plumage was one of the pure white type. Just about half a dozen of the same species of Albatrosses remained in sight, but during the afternoon the ship disturbed a raft of some 300 Blue Petrels with a further 100 towards evening when 5 White-chinned Petrels and a single Georgian Diving Petrel completed the day's total.

The Southern coastline of South Georgia was in view during the morning of the 19th January, 'Kista Dan' anchoring in Cumberland Bay at noon. While at sea Blue Petrels were the main feature with White-chinned Petrels a close second. Wandering, Black-browed and Light-mantled Sooty Albatrosses were all present with the usual White-chinned Petrels and Wilson's Storm-Petrels astern. No Prions were seen but Giant Petrels, Pintado Petrels were following astern with increasing numbers of Wilson's Storm-Petrels.

The two days spent at South Georgia included a trip to Leith Harbour where one solitary King Penguin in heavy moult was seen sitting, seemingly quite contented in the middle of a stream! A visit was also made to the nest sites of the Light-mantled Sooty Albatrosses, the nests in deep tussock grass on an almost vertical cliff face. There were chicks in the nests and one male circled close by emitting an eirie wail sounding as if my companion had lost his grip on the cliff and was on his way down to the sea! Between Grytvyken and Leith we saw a beautiful adult Grey-headed Albatross.

At 1400 hrs on 21st January 'Kista Dan' sailed for Halley Bay, intending to steer easterly to 10°W, and then south down towards the ice shelf. During the day many thousands of Prions were seen until 1900 hrs, with a constant escort of Wandering, Black-browed and Light-mantled Sooty Albatrosses, Pintado, Giant Petrels and Wilson's Storm-Petrels. White-chinned Petrels remained until after 2300 hrs when dusk was falling.

The 22nd January broke foggy with the ship steering southeast and all the previous days species in attendance, many juveniles amongst the Albatrosses. During the afternoon occasional Soft-plumaged Petrels appeared and for the first time 2 Black-bellied Storm-Petrels and 3 single Kerguelen Petrels. Two parties of King Penguins dived at our approach.

On 23rd January with rising sea and wind as many as 32 Light-mantled Sooty Albatrosses were about at one time, only half a dozen Wandering Albatrosses, two or three Black-browed Mollymawks, 6 Giant Petrels and a steady but fairly constant count of about a dozen of each species of Pintados, Black-bellied Storm-Petrels, Soft-plumaged Petrels and Antarctic Fulmars. Only 3 Wilson's Storm-Petrels seen, and small number of Prions, about 30.

24th January. As land receded changes occurred and with the ship well clear of the South Sandwich Islands on 25th January and later on 26th January I noticed that Wandering Albatrosses, Light-mantled Sooties and Giant Petrels were down to five or less each, with only single Black-browed Albatrosses. Prions were reduced in numbers from counts of 20, the largest single count on 24th and 25th January to about a dozen on 26th. Pintado Petrels now up to not more than 10 with about the same count of Soft-plumaged Petrels. By 26th 6 Wandering and 4 Light-mantled Sooty Albatrosses remained, only a single

Wilson's Storm-Petrel was seen, but Kerguelen Petrels had increased with parties of up to 10 rising from the sea and at least 30 seen before dusk. Blue Petrels were still about. On 27th January, with noon position $60^{\circ}\text{S } 10^{\circ}\text{W}$, and a fine sunny morning with light snow falling early, icebergs were frequent. Albatrosses had almost deserted us, only 3 Wandering Albatross and one Light-mantled Sooty and a solitary Giant Petrel. A few Blue Petrels, one Black-bellied Storm-Petrel and 3 Kerguelen Petrels all day, but 25 Antarctic Petrels.

28th January. We were now nearing the Antarctic circle, noon position $66^{\circ}\text{S } 11^{\circ}\text{ } 9'\text{W}$, and the sea was almost flat calm with light cumulus cloud covering the sky, almost a tropical setting! The Albatrosses had gone but the first 4 Snow Petrels appeared.

On 29th January 'Kista Dan' crossed the Antarctic Circle on another beautiful day. There was a distinct 'farthest South' look about the birds today—30 Antarctic Petrels, 15 Snow Petrels and newcomers, 25 Antarctic Terns in a single party. Although within 300 miles of Halley Bay on 30th January the sea was still fully open but with pack ice as a white line on our port beam. Snow Petrels were most frequent, about 50 birds seen with Antarctic Petrels, 30 birds, and a party of juvenile Antarctic Terns on an iceflow. At midnight the sun was still high above the horizon.

Halley Bay was reached on 31st January. Antarctic Petrels were everywhere. Several Adelie Penguins and one Emperor Penguin were in the reception committee, while a beautiful cream coloured McCormick's Skua flew overhead. Our position was $75^{\circ}\text{ } 31'\text{S } 26^{\circ}\text{ } 36'\text{W}$, about 900 miles from the South Pole.

On 6th February 'Kista Dan' left Halley Bay in the evening steering this time due North for South Georgia with an escort of 20 Antarctic Petrels and 30 Snow Petrels, and crossed the Antarctic Circle again on 8th February. On February 9th the ship met pack ice at $64^{\circ}\text{S } 28^{\circ}\text{ } 30'\text{W}$, finally heaving to in the evening. Surprise new visitors so far south were one adult Wandering Albatross and 2 Giant Petrels.

On February 10th, at approximately 60°S , 23°W , the ship began moving through heavy flocs. One Emperor Penguin was seen on an ice floe with another in the sea and a party of 12 Adelie Penguins and one Juvenile with a ruff of down on head and shoulders. It must have swam a long way from its nearest breeding ground at South Sandwich Island about 200 miles away. There were still no Albatrosses, but Antarctic and Snow Petrels were still with the ship, a few Antarctic Terns were on the flocs, mostly juveniles, and several parties of Wilson's Storm-Petrels were over the free water. One Kerguelen Petrel and 2 Giant Petrels made up the day's count.

By February 11, now 100 miles south of the South Sandwich Islands, 8 Antarctic Petrels were seen, the last to be encountered. Up to 25 Snow Petrels were present during daylight hours, the last Emperor Penguin and a few Adelie Penguins were riding it out on the heavy but diminishing sea ice.

12 February, 'Kista Dan' was now closing South Georgia and the familiar pattern of species seen on our departure began to increase. Only a single Snow Petrel, the last to be seen, appeared, 10 Wilson's Storm-

Petrels and 6 Kerguelen Petrels were following singly and 3 Wandering Albatrosses and a single Black-browed Albatross were sighted. Prions were around all day and four large Penguins, almost certainly King Penguins were observed 'porpoising'. The sight of 12 White-chinned Petrels seemed to indicate the approach of land.

On 13th February numerous large icebergs were in sight and by noon we were within 14 miles of South Georgia. There was a marked increase in seabirds and off the Clark Rocks an Antarctic Skua came on board for a short time. Wandering, Black-browed and Light-mantled Sooty Albatrosses, White-chinned, Pintado and Giant Petrels, and now Diving Petrels up to nearly 20 of each species, with a count of 2 Black-bellied Storm-Petrels were in sight. It was the Prions that held the stage however. Between 1700 and 1900 hrs they were assembling off-shore and passing the ship at about 500 per minute. They were scattered all over the sea and the day's total could not have been far short of 75,000. Several groups of Penguins were seen, one party at least being Macaroni Penguins.

After spending the night at sea 'Kista Dan' entered Cumberland Bay at 0700 hrs. The whole range of mountains with Mount Paget towering above its neighbours stood out clearly in brilliant sunshine while sea fog lay like a blanket outside the bay. We picked up passengers and sailed at once for the Falkland Islands.

During the next 3 days, 15th, 16th and 17th February we certainly found ourselves in the "Howling Fifties" with tremendously high seas, being hove to throughout the 15th February. Suffice it to say that Wandering Albatrosses were in regular attendance, at one time up to 20, with fleeting glimpses of other species we had seen close off South Georgia. In this weather it was difficult to assess numbers but Giant Petrels, Soft-plumaged Petrels, and Wilson's Storm-Petrels were about and a fleeting glimpse of an odd Black-browed and Grey-headed Albatross. During the morning of 16th about 30 Great Shearwaters were seen for the first time and again on 18th February.

We were nearing the end of our journey, the regular species seen for the past 3 days were with us and on 19th February about 100 Sooty Shearwaters added to the list.

As the Falkland Islands came into sight at 1700 hrs Dominican Gulls, and King Shags escorted the ship into Stanley Sound.

'AWAY FROM THE USUAL'

ROBERT B. DYER, O.W.S. Weather Reporter.

One of the most rewarding aspects of bird watching occurs when the observer meets up with an unusual species.

As I sail on board a weather ship, there is ample opportunity for observation of sea birds – namely, Fulmars, Kittiwakes, Great and Lesser Black Backed Gulls, Gannets, Terns and the Skua family. A Long Tailed Skua for example, although uncommon to most land-lubbers, is seen quite regularly when on ocean stations.

But one trip I had the experience of a real “find”.

Weather Reporter was stationed at “India” (59N 19W). It was movie night and just as I relaxed for a view of the unfeathered bird – news came via the 2nd. Cook that he had seen a “hawk” landing on the ship.

The cook and I went off to see and as it was dark now we took a torch. We found it on a platform high up on the main mast – it was easily captured because of its exhausted state.

I could not readily identify the species, so I decided on an immediate examination in comparison with the details available in the “Field Guide to Birds of Britain and Europe”.

As a member of RNBWS I had for long enjoyed using their forms for “routine” sightings – now I excitedly took the details of the “hawk”. It was a Red Footed Falcon, but where the book said Reddish Orange for eye-ring, foot and bill – “my” bird seemed distinctly Yellowish Orange.

A case for further examination—Since there was no other bird observers aboard, I resolved to keep the Falcon until docking day – only a week ahead – and take it to the Glasgow Art Gallery where I hoped to find out more information. But alas for my plans – some “kind-hearted” person released the bird.

During its two day stay aboard “Reporter”, I “force-fed” it with meat and liver at first, then watched while it ate readily itself.

Geoff Allen, an amateur photographer, took some pictures of the bird but in the reproduction, the true colour was not produced. This seemed no fault of Geoff's – may have been poor lighting on the bright orange.

I did go to Glasgow Art Galleries where Mr. Palmer the curator of birds was very helpful in delving in his records and books of the subject. The final conclusion was that the unusual visitor was a two-year-old Male Red Footed Falcon. Since it had been several years since the last sighting of the species in Scotland – it is possible that the colouring or the description of it has not remained static.

So at long last I had had my rare occasion.

Back to the sea and seabirds, but what will be next to get me – away from the usual – and feed my curiosity and interest in bird watching at sea?

LANDBIRDS ONBOARD ON THE OCEAN ROUTES

By Captain G. S. TUCK, D.S.O., R.N.

[From a study of land bird reports from RNBWS members covering ten years]

Expectant travellers on sea voyages who have asked me what seabird they were most likely to see during the voyage have sometimes added that awkward sentence, "and are there any land birds I am more likely to see than others." Than others!—they may well see none; and yet this all depends upon the particular sea route and to a great extent upon the season of the year.

A passenger may be quite unaware of land birds in flight in the sky above, and may not even notice a little bird flying at low level close alongside a ship making desperate efforts to alight onboard, but very large numbers of land birds do alight on ships at times not only when the ship's route coincides with a particular migration fly path, but also, admittedly occasionally, where their presence may be least expected far out at sea.

To attempt to give specific instances of the variety of tropical and sub-tropical land birds which have been identified onboard at sea in these zones in distant waters would be impracticable for they are sporadic and provide no reasonable pattern. Nor indeed to repeat the occasions reported in previous "Sea Swallows" of the numerous instances of Peregrine Falcons remaining on ships for days on end identified in all the principal oceans of the world, often far out at sea. Other unique instances must be omitted too although they give cause to wonder what inspired these birds to wander so far.

A 'short list' of a few of the most regular 'ship visitors' on certain routes, and I refer only to those actually partial to alighting onboard, does however emerge, but a voyager may well observe 'singles' and sometimes 'flocks' of the larger birds such as herons, egrets and raptors on particularly favoured migration routes as passers by.

The routes on which the largest number and variety of 'ship visitors' are liable to occur within the records of R.N.B.W.S. are therefore through the Mediterranean, Red Sea, on the sea route to Cape-town while passing the bulge of Northwest Africa and coastal off the east coast of the U.S.A. Many reports have also come from Tankers between Aden and the Persian Gulf, and just a few regular visitors on ships crossing the North Atlantic, from the British Isles to the east coast of North America.

Millions of land birds cross the Mediterranean during Spring and Autumn on migration, the vast majority at such heights that only Radar can detect them. At times however, when high contrary winds and lowering clouds prevail, large 'falls' of more than a hundred birds may (and often do) invade a ship. At these times hawks and owls have been amongst them, paying little regard to the ship's crew and killing and eating on deck numbers of small birds.

On the routes I have quoted the peak periods lie between March and May and again from September to October inclusive.

Without doubt Swallows *Hirundo rustica* and House Martins *Delichon urbica* are reported most frequently except between Aden and the Persian Gulf, and this goes for the Barn Swallow, as our Swallow

is known in the Caribbean area. It is surprising how often swallows have been reported in the Spring flying in and out of open scuttles of living quarters; perhaps they have a built-in predilection for a nesting site on an angle iron! Be that as it may a pair of Barn Swallows onboard a ship in the Caribbean were seen to mate in the Master's cabin!

But to return to the Mediterranean at the peak seasons. Turtle Doves *Streptopelia turtur* head the list, but hot favourites are the wagtails *Motacilla* sp., Pied, Grey, Yellow, Blue-headed and Ashy-headed species. Sky larks *Alanda arvensis*, Crested Larks *Galerida cristata* and Short-toed Larks *Calendrella cinerea* are regulars together with the Redstarts *Phoenicurus phoenicurus*, Black Redstarts *Phoenicurus ochruros*, Wheatears *Oenanthe* sp. and many species of warblers and pipits, too numerous to mention. Of the larger birds which have occasionally landed onboard one may mention Kestrel *Falco tinnunculus*, Lesser Kestrel *Falco naumanni*, Scops Owl *Otus scops*, Purple Heron *Ardea purpurea*, Squacco Heron *Ardeola ralloides*, Nightjar *Caprimulgus europaeus* and even Stone Curlew *Burhinus oedipnemus* and the Peregrine Falcon *Falco peregrinus* (of course!).

As I write the Suez Canal is closed, but surely one day ships will pass through again and down the Red Sea. I cannot refrain from calling attention to the passing by of the White Storks *Ciconia ciconia*. If a voyage is ever fortunate enough to be passing through the Gulf of Suez during the first week of April or the last ten days of August he may be a witness to the mass migration of White Storks in thousands crossing the Gulf during their northward and southward migration. But here in the Red Sea the Hoopoe *Upupa epops* heads the list, together with the Bee Eater *Coracias garrulus* and other species thereof perhaps noticed among the less conspicuous birds. Black Kites *Milvus migrans* have twice been reported settling in large numbers on the rigging and yards of ships, doubtless on migration. The Red-footed Falcon *Falco vesperitus*, and the Grey-hooded Kingfisher *Halcyon pallidiventris*, an African species, have twice been reported onboard, but these must be considered irregular visitors in comparison with the usual reports of Kestrels, Swallows, House Martins, Larks, Wagtails, Pipits and Warblers common also in the Mediterranean.

The route to Capetown from the British Isles during Spring and Autumn passing through the Canary Islands always provides Turtle Doves, Swallows in plenty and a large assortment of small passerines in which warblers seem to predominate *Acrocephalus* sp, *Phylloscopus* sp, *Sylvia* sp. This can indeed be an excellent area for the birdwatcher for many more land birds have alighted on ships.

Passengers on the North Atlantic routes from the British Isles to Canada and the U.S.A. are unlikely to observe more than a very occasional land bird onboard once their ship is well out to sea until within four hours steaming of the east coasts of Canada and the U.S.A.

However, land birds do appear far out at sea and the few that are apt to land on ships seem to run to form. Some examples in the North Atlantic area between 45° and 52°N and as far out as between 15° to 30°W may be quoted. January/February: Golden Plover *Charadrius apricarius*, Lapwing *Vanellus vanellus*, Turnstone *Arenaria interpres*, Starling *Sturnus vulgaris*; April/May: Swallow *Hirundo rustica*, Swift *Apus apus*, House Martin *Delichon urbica*, Sand Martin *Riparia riparia*, Wheatear *Oenanthe oenanthe*, Whimbrel *Numenius arquata*, and Redshank *Tringa totanus*. Many other species clearly have migra-

tory routes well out over the sea, indicated by the records of the British Ocean Weather Ship observers, but have not been recorded onboard ships on the sea routes.

Occasionally in October/November Turnstones and Redwings *Turdus musicus* have appeared and during the winter Snow Buntings *Plectrophenax nivalis*, the last usually on the western side of the North Atlantic.

Clearly from the eastern coastline of the North American Continent in places to 100 miles or more offshore a flypath for many American migratory species occurs, and with strong westerly winds migrants have appeared onboard even further to seaward. Again one can quote one or two cases of birds which have landed on ships eastward bound to the British Isles and have been carried thus close to the shores of Ireland and even into the English Channel.

Some of the more regular ship visitors recorded by British ships trading between Canadian and American coast ports and the Caribbean may be mentioned. The principal records refer to April/May and October/November. Without doubt the Slate-coloured Junco heads the list, closely followed by the White-throated Sparrow. The following list shows the species most frequently identified onboard in order of probability.

April/May: Slate-coloured Junco *Junco hyematus*, White-throated Sparrow *Zonotrichia albicollis*, Song Sparrow, *Melospiza melodia*, White-crowned Sparrow *Zonotrichia leucophrys*, Mourning Dove *Zenaidura macroura*, American Robin *Turdus migratorius*, Flicker *Colaptes auratus*.

August/September: American Pipit *Anthus spiroletta rubescens*, Myrtle Warbler *Dendroica coronata*, Magnolia Warbler *Dendroica magnolia*, Brown Thrasher *Toxostoma rufum*, Northern Water Thrush *Seiurus noveboracensis*, Mourning Dove.

October/November: Slate-coloured Junco, White-throated Sparrow, White-crowned Sparrow, Myrtle and Magnolia Warbler, Golden-crowned Kinglet *Regulus satrapa* and Barn Swallow *Hirundo rustica*.

The sea route from Aden to the head of the Persian Gulf has provided a certain but limited pattern of ship visitors although on one occasion in August at the northern end of the Persian Gulf, more inland than at sea, Captain D. Stam recorded 15 different species onboard at one time including a majority of small and identified warblers, including Garden, Icterine, Great Reed and Reed Warblers, White-spotted Bluethroat, Spotted and Little Crake, and Nightingale not included in those seen onboard at sea on some occasions.

At sea the Yellow Wagtail heads the list followed by Hoopoe and Nightjar sp and as follows: (scientific names quoted previously are not included):—

April/May: Yellow Wagtail, Hoopoe, Red-backed Shrike *Lanius collurio*, Nightjar *Caprimulgus sp* and *aegyptius*.

August/September: Yellow Wagtail, Red-backed Shrike, Hoopoe, Bee Eater sp, Roller *coracias garrulus*, Crested Lark, Turtle Dove, Woodchat Shrike *Lanius senator*, Nightjar sp.

I have omitted all isolated cases and those referred to have occurred onboard ships at times on 3 or 4 and in many cases more occasions. It would be unwise to raise false hopes in answering that awkward second sentence.

EXTRACTS FROM SEA REPORTS—SEABIRDS

[Only those of us privileged to study in detail the reports on sea and land birds that come to hand week by week from members at sea enjoy the many original notes of interest which cover the tabulated details. Some examples are recorded below—Editor.]

SEA BIRD OBSERVATIONS IN FAR EASTERN WATERS

From the Records of 2nd Officer D. M. Simpson

Few can have matched Simpson's opportunities in the South East Asian Archipelago during 1967. He records:—

20th June, 1967. 45 to 60 miles east of Christmas Island, Indian Ocean. 30 White-tailed Tropic Birds, *Phaethon lepturus fulvius*, of the Christmas Island race, around the ship in groups of 3 to 8, noticeable by the strong golden tint of their plumage and exceptionally long central tail streamers. At the same time 100 Blue-faced Boobies and 20 Brown Boobies fishing.

12th July, 1967. Taiwan Strait. A flock of about 100 Storm-petrels in the ship's wake throughout the afternoon. I took these to be Swinhoe's Storm-Petrels, the birds being dark brown overall with paler streak evident on the upper wing and with forked tails. They weaved continuously to and fro across the wake.

16th July, 1967. Sighted off the N.W. coast of Kyushu Island, 34°N, 130° 45'E, 600 White-faced Shearwaters. At 1730 hours a single flock of 500 off Shira Shima Island. From here to Agincourt Island, 25° 34'N, 128° 50'E, on 28th July, 1967, 500 Sooty Terns were seen, very common off the group, and 200 Proeon Boobies. Here also I saw 800 White-faced Shearwaters, unmistakable in flocks of 200 birds.

Eleven months earlier, on 15th July, 1966, off Sento Shoso Islands, a small group of islands E.N.E. from Keeling Island, I recorded several hundred Brown Boobies and it would appear that there must be a breeding colony on Sento Shoso.

Short-tailed Shearwaters were dispersed over 100 miles; Sooty-brown, darker on primaries, greyish under wing-coverts. Definitely not Sooty-Shearwaters and very small sized compared with White-faced Shearwaters.

17th August, 1967. Off Rabaul, New Britain. About 1,500 White-capped Noddies observed over a large shoal of fish at entrance to Simpson Harbour. Ship passed very close to this extraordinary swarm of birds. The tops of their heads were conspicuously white.

19th August, 1967. Up to 22 Lesser Frigate-birds off Cape Gazille. White patch on either side of abdomen observed. Some with white heads and underparts.

Simpson's ship was also in the vicinity of the East Papuan Islands, Louisiade Archipelago, Solomon Islands, Guadacanal, New Caledonia, Bismark Archipelago, Caroline and Mariana Islands and reported that Crested Terns were common throughout the Philippine, Papuan and New Caledonian areas. Off the south-west coast of New Ireland 100 Black-naped Terns were seen. To wind up his reports Simpson provides a list of gulls common in the harbours of Japan in winter—Common, Slaty-backed, Japanese, Herring, Yellow-legged, Northern Black-headed, and offshore Kittiwakes.

MOVEMENTS OF GREAT SHEARWATERS AND WILSON'S STORM-PETRELS IN THE WESTERN NORTH ATLANTIC

From the Records of Radio Officer Lars-Erik Löfgren.

Löfgren was on passages between New York and the east coast of South America between May and June, 1967, and provided a further record of a northerly passage of Great Shearwaters and Wilson's Storm-Petrels at this season. Noon positions at sea are quoted, sufficiently accurate for the purpose. His observations of course only cover one narrow sea route in the broad Atlantic and Great Shearwaters are no doubt also spreading further to the eastward at this season.

It is however of some interest that on 12th May, 1963, in 19°N, 55°W, and on 13th May, 1963, in 22°N, 52°W over 400 Great Shearwaters were observed flying in flocks rapidly North (*Sea Swallow*, 1963, pp. 64-65) at 25 knots almost exactly along the same route as those observed by Löfgren in June, 1967, and that large concentrations are reported regularly in June and July off the Grand Banks of Newfoundland.

June, 1967. Löfgren's ship left New York southward bound on the direct route towards the bulge of Brazil and on 2nd June in 34°N, 66°W, north-west of Bermuda, 15 Great Shearwaters were seen flying in pairs N to NW. These follow the following daily reports—all June. 3rd, 30°N, 62°W, 8 birds; 4th, 25°N, 57°W, 6 birds; 5th, 21°N, 54°W, 15 birds; 6th, 17°N, 51°W, 34 birds; 7th, 13°N, 47°W, 15 birds; 8th, 9°N, 44°W, 4 birds; 11th, 4°S, 35°W, 15 birds; 12th, 10°S, 35°W, 4 birds. All birds flying northwards.

Having proceeded southwards coastwise to Buenos Aires and seen no further Great Shearwaters Löfgren was again on passage northwards on 25th July bound for Florida, 30th July, thence along east coast of N.S.A. to 40°N, 73°W, 2nd August, and saw no Great Shearwaters.

Since RNBWS has no recorded plots of Great Shearwaters along the east coast of South America south of 10°S it seem probable that at least a large stream more directly from the Tristan da Cunha group to the easterly point of the bulge of Brazil and thence head straight for the Newfoundland Banks.

WILSON'S STORM-PETRELS

R.N.B.W.S. has records of Wilson's Storm-Petrels northwards from Buenos Aires during April and May (and further plots, no doubt southwards, in October). Löfgren's records in 1967 cover observations further North during the latter half of May to 7th July.

Reporting on his first passage North from Santos to New York we find the following:—WSP=Wilson's Storm Petrel. 14th May, 1967, 37°N, 70°W, ship steering northwards 100 miles east of Cape Hatteras. 217 WSP counted, large groups of between 30 and 70 followed ship at times, others singly or in groups flying N to NW. 21st May, 39°N, 72°W, east of New York, 33 WSP, later off Delaware light vessel. 86 WSP. 25th May, 40°N, 72°W, 37 WSP following ship. On 31st May, ship left New York on passage southwards (see previous report on Great Shearwaters) and on 1st June in the afternoon passed from the green waters of the Labrador Current into the deep blue waters of the Gulf

Stream. During the day at 37°N, 70°W, 365 WSP counted, some following, others flying N.E. Many of these, quoted as 30 per cent, had moulted wing quills. From 2nd June onwards no more WSP were seen, and it appeared that the main movement had passed further North.

On a later northward passage off North Virginia on 12th August, 37½°N, 74½°W Löfgren estimated 640 WSP over a wide area, the majority moving NNE, others running and jumping over the water feeding. Most were in full plumage, but some showed missing quills.

POMARINE SKUAS WINTERING IN THE CARIBBEAN

Pom Sk = Pomarine Skua

During 1966 and early 1967 Captain P. W. G. Chilman was at sea on several voyages covering the Caribbean Sea area. Amongst many reports of the usual sea birds the incidence of Pomarine Skuas is of interest. The area covered lies between 10°N and 20°N and between 60°W and 70°W.

No Pomarine Skuas were seen in the area in July and August and Chilman was not again present until November.

On 21st November, 4 Pom Sk. All appeared immatures with little or no central tail feathers showing. White flash prominent on wings. One with almost adult plumage showing whitish neck area, dark breast band and white underparts. 2 others appeared light phase immatures with white areas heavily barred with brown. 24th November, 106 Pom Sk spread over a wide area. Some followed ship, many on water, all birds congregating when galley refuse jettisoned. All appeared light phase, yellow noticed on necks of adults. Many immatures, barred on underparts, appeared to have whitish rumps much barred across. Many birds moulting; frequent shrill call notes 'Skuaa.' 25th December, 2 Pom Sk. 26th December, 44 Pom Sk. Several, possibly young adults, had a certain amount of dark barring on underparts but fully developed twisted central tail feathers. Several other old birds in light phase were in moult. 13th January, 1967, 16 Pom Sk, adults in full light phase plumage, one or two young adults with barring on flanks and rump but fully developed central tail feathers.

A few, total 17, Pom Sk were observed in the area in February, 1967, and on 1st March Chilman recorded 30+ Pom Sk. Here the ship's period in the Caribbean ended.

WHITE-BELLIED STORM-PETRELS, *FREGETTA GRALLARIA*, IN NORTH INDIAN OCEAN AND ARABIAN SEA IN THE SUMMER

Captain P. W. G. Chilman in recorded passages through the Indian Ocean and Arabian Sea in 1957 has thrown further light on the presence of this species. Although, until a true *Fregetta grallaria* has been recovered onboard, examined and measured, there must be some doubt as to the possibility of confusion under observation at sea with a pale form of the Black-bellied species, *Fregetta tropica*, continued reports of white-bellied species predominate.

Captain Chilman sailed from the Persian Gulf to Australia on 22nd July, 1967, and on 25th July at 19°54'N, 64°40'E, some 350 miles east of Nasira Island reported one white-bellied Storm-Petrel. Two days

later at $12^{\circ}21'N$, $74^{\circ}05'E$, near the Laccadive Islands he observed 2 more. He remarks: "Primaries, leading edge of wings and tail dark brown, not as dark as Wilson's. Rest of dark part grey-brown. Vague white rumps. White belly. Underwing white with dark tip and broad dark edges. Gliding and hopping across water with outspread wings, frequently kicking off from surface with noticeable splash."

During his return trip he observed two more on 27th August at $15^{\circ}04'N$, $70^{\circ}56'E$, about 250 miles west of Goa "one of which was splashing in and out of the water as if picking things up." Earlier during a passage from Durban to the Persian Gulf he had observed a group of 4 on 15th July at $11^{\circ}26'N$, $55^{\circ}28'E$, and on 16th July 2 more at $16^{\circ}04'N$, $57^{\circ}38'E$. He describes these as: "Head and upperwings black, back greyish-black, ill defined white rump, tail black above and below, underbody pure white, centre of underwing white with black tips and broad black edging. Fluttering flight almost touching the water."

This species has been reported previously by G. S. Willis, M. E. Jones (18th July, 1958 at $10\frac{1}{2}^{\circ}N$ $63\frac{1}{2}^{\circ}E$) and A. Y. Norris (6th October, 1960, at $9^{\circ}N$, $68^{\circ}E$)—*Sea Swallow*, Vol. 17, 1964:26.

INVASION OF BIRDS, POSSIBLY BLACK TERNS, ONBOARD SS VANESSA IN PERSIAN GULF

Extract from Meteorological Log of Vanessa, Shell Tankers Ltd.,

Capt. C. R. Kerr.

[At the time of publishing this note it has not been possible to obtain further details, and I don't know what other species they could have been.—Editor.]

"On 27th April, 1967, in approximate position $26^{\circ}N$, $56^{\circ}E$, proceeding eastwards in the Persian Gulf towards the Straits of Hormaz towards evening the vessel was invaded by many birds, probably well over 500. The weather for most of the day consisted of strong winds up to force 6 with visibility restricted to 4-6 miles through dust and fine sand in suspension.

Although several different species were seen the predominant type was a web-footed bird some 10 inches from beak to tail, black all over with the exception of the underside of the wings which were white. The tails of these birds were forked. They appeared to be quite tame and could easily be caught by hand. Soon after passing the Quoins the visibility cleared and the birds departed."

EXTRACT FROM ONE OF 2nd OFFICER S. E. CHAPMAN'S DETAILED SEA REPORTS OFF THE WEST COAST OF SOUTH AMERICA

"At Matarani, 20th September, 1967, ashore. Red-legged Cormorants were nesting at about six sites on the cliff sides. Some have well constructed nests consisting of a mass of vegetation and fairly deep cup. One bird incubating a single white egg. These are very handsome looking birds as they sit perched on their ledges. One bird persistently slapping its foot on the rock as if getting impatient for mate to return. On arrival great fuss and commotion. Inca Terns evidently occupying holes amongst rocks and seen displaying and bowing etc. on open cliff tops.

Talked with the local guardian of the Guano Islands here, Olvedio. He told us some things which seemed conflicting with our observations and readings. Asked whether pelicans and guanayes nest on the offshore islands he answered that they had but now were gone north and nested there. They nested all the year round. When asked about the Garamas (*L. modestus*) and other gulls he shrugged his shoulders and seemed very vague. The guano he said was taken in November and December even when birds did nest, but did not think it did them any harm."

Chapman in a further report of a coastal passage in 1968 witnessed among many other observations a remarkable concentration of Black Terns close off Guayaquil at $4^{\circ}40'S$, $81^{\circ}22'W$ on 9th January. He could only estimate 6,000 birds, but—quote: "Counted 1,300, then in a ten-minute period passed dense flocks estimated at several thousands. At a distance these flocks appeared as a grey-brown mass wheeling over the sea."

Of course seafarers are sometimes confronted with large concentrations of seabirds and I pick two examples which have not as yet appeared in *Sea Swallow*.

LARGE CONCENTRATIONS OF SEABIRDS

A. *From the Meteorological Log of M.V. Limerick (Trinder Anderson and Co. Ltd.), Captain P. D. Guerrier. On passage from Melbourne to Port Kembla.*

"20th October, 1967, Cape Everard. $37^{\circ}48'S$, $149^{\circ}17'E$, bearing 040° 28 miles. Sea calm. At 0050 G.M.T. vessel approaching area of sea which was so heavily covered with birds that it appeared black. The area covered by these birds must have been about 15 acres. As vessel approached there was a sound like millions of drums being beaten as the birds in our path endeavoured to take to the air. Thousands of birds gave up the attempt and sat on the surface right in our path. For a minute or so we appeared to be sailing on a black carpet as we ran down thousands of birds. The birds, which must have been bloated with fish, seemed none the worse for being run over for they all popped up again alongside us, not even bothering to keep out of the wake. Several seals were passed sunning themselves on the surface, later a number of whales were sighted."

[Presumably Short-tailed Shearwaters about to close their breeding quarters in the Bass Strait.—Editor.]

HERE AND THERE WITH THE BIRDS

FROM THE EDITOR'S LOGBOOK

A BOOBY DOES IT AGAIN

It was certainly a Booby, surely a Brown Booby, in the middle of the South China Sea, but this time the tables were turned—it had made an error in identification.

Where was the guard and band? What, no non skid flight deck this time? Only the Captain and his wife, the Chief Officer and Second and Third Officers to receive him. No wonder he came down with a thump on the main deck, turned a cartwheel and lay with his pale legs in the air.

"I walked up behind him to pick him up," wrote the Captain. "He clamped down on my hand and from the marks he left I judged that he had teeth of a sort. Ungrateful bird and as he sat on the sheerstrake he was washed overboard, and yet as darkness fell he was back again with us."

[Extract from the Meteorological Log of ss *Caltex*, Overseas Tankers (U.K.) Ltd. With apologies to the Commanding Officer, HMS *Eagle*, and Captain T. Kennington, ss *Caltex*.—Editor.]

ESPIONAGE AND BROWN PELICANS

Birdwatching in foreign ports is not always plain sailing. When a Chinese Port Authority was ushered into the Master's cabin of one of our members *Sea Swallow* was lying on the Master's desk. Eying the title of Royal Naval Birdwatching Society the Chinese official jumped to the conclusion that the Master was studying some British Naval secret document, and here indeed was an extremely suspicious character. The Master had some difficulty in soothing the official, but no doubt the photographs of birds eventually set his mind at rest.

Captain Chilman writes:

"29th October, 1967
at Punta Cardon

At 1630 hours this afternoon there were 176 Brown Pelicans just ahead of the ship, half young and half adults in post nuptial plumage, with heads all white and necks yellow. The adults had mainly red-brown bills which I haven't seen mentioned before. There were also hundreds of Laughing Gulls, Royal and Common Terns, Bigua Cormorants and Egrets.

I went ashore to have a closer look along the shore line and fell foul of a sentry who objected to my binoculars. I explained with little success in bad Spanish that I was looking at the birds, but one can't argue too much with a man with a sword and automatic rifle. In the end I was allowed to proceed after promising not to use my binoculars nor to take any notes."

FLAMINGO OVERBOARD. PORPOISE ONBOARD

Remembering Chief Engineer L. J. Macinne's note from a previous letter (Short Notes, *Sea Swallow* Vol 15, 1962) which ran "One has to be sharp in this ship to observe any bird larger than a Thrush. We have Chinese ratings and they are bird lovers too with the difference that they like these birds with boiled rice." I was amused to get this follow up in 1967. "Just prior to joining this ship a Flamingo had hit the W/T aerial. The excited Asiatic crew were around and dashed towards the stricken bird which managed to throw itself over the side and so was not available for roasting or examination."

And again: "After a spell of rough weather coming up from the Cape of Good Hope we found a porpoise in the scuppers. Unfortunately before the weather abated another sea carried him back overboard."

[No weather for birdwatching.—Editor.]

SOCOTRA CORMORANTS ON THE MOVE

HMS *Intrepid* was in the Persian Gulf in March 1968. On 23rd March at 1830 hours with the ship in position $24^{\circ}40'N$, $52^{\circ}50'E$, south-east of the Sheikdom of Qatar and approximately between Dalma and Zarqa islands a remarkable passage of Socotra Cormorants was seen close ahead of the ship. Lieutenant I. K. Dawson, R.N., in his report quoted the ship as steering through strings and strings of these birds all moving in a steady N.N.W. direction and estimated at some 20,000 birds. A photograph taken shows members of the ship's company lining the forecastle and the lines of cormorants clearly visible from under the bows to as far as the eye could discern. There are many islands in the area and local report had it that this was a regular migration which occurs between islands.

Follow Up—Extract from Meteorological Log of SS *Tabaristau*, F. C. Strick and Co. Ltd. Captain T. D. Dumont. "26th July 1967 at 1300 hours G.M.T. off Dubai in the Persian Gulf. A flock of cormorants observed. They extended for about $1\frac{1}{2}$ miles in dense formation and clearly visible on radar at 2 miles."

BARN SWALLOW FAR OUT IN SOUTH PACIFIC

It is perhaps rather remarkable for a Barn Swallow *Hirundo rustica* to appear onboard a ship as far out in the ocean as $9^{\circ}30'S$, $110^{\circ}30'W$, 960 miles from the Galapagos Islands and 1,020 miles from Easter Island. Two excellent photographs of the bird sent by Radio Officer E. L. Marchant confirmed its identity.

A Bank Swallow *Riparia riparia* was also reported onboard by Captain Chilman on 10th November, 1967, in position $10^{\circ}53'N$, $117^{\circ}25'W$, the nearest land being the southern tip of lower California 845 miles N.E.

[Barn Bank and Cliff Swallows are often reported onboard ships during autumn migration in the West Indies and have occurred west of Panama.—Editor.]

RAZORBILL ON SUBMARINE

Extract from a letter from Lieutenant M. G. T. Harris, R.N.: "Our submarines occasionally have birds landing on them. I remember when I was Officer of the Watch in HMS *Grampus* (surfaced!) a Razorbill landed within two feet of me when we were going down the Irish Sea. It was slightly contaminated with oil, was quite friendly and lived in the E.R.A.'s mess for two days until we reached Portsmouth and handed over to the R.S.P.C.A. for treatment. The incident caused great interest, and I am certain that we should have sent in a report had we known what to do. I should be glad to receive some forms and sponsor them here."

[We shall look forward to further reports.—Editor.]

A TROPIC-BIRD RECOVERS

Lieutenant Commander J. A. Donaldson, R.N., reports on a White-tailed Tropic-bird which flew into the funnel of HMS *Tartar* 170 miles northeast of Bermuda during the night of 9th November, 1966, and

was in a very weak state and unable to take food at all for 24 hours. Drastic action was then taken to feed it forcibly with cod rammed down its throat washed down with fresh water. Similar feeding was continued until the 5th day when it was able to stand. The following day launching operations started and after one or two unsuccessful attempts a gust of wind caught it, it was lifted over the bulwarks and flew off strongly, the ship being 300 miles north of the Azores.

CORNISH CHOUGH IN SCOTLAND

Dr. C. Suffern in a letter to me remarks on a somewhat unusual sighting of a Cornish Chough *Coracia pyrrhocorax*. Quote: "On 23rd April, 1967, near Farr [Strathnairn, Invernesshire] in Scotland as I was going in a car as a passenger up a high hill I saw a Cornish Chough perched on a fence post. It did not fly away until the car was quite close to it so that I had ample time to study it. Perhaps it had made its way to east Scotland by moving through Loch Ness (or Great Glen)."

[It is believed that the only Choughs current in Scotland are in Islay, Inner Hebrides, but they flourish in Ireland. In Cornwall they are now almost extinct but may still be found in parts of Wales.—Editor.]

OBSERVATIONS OF SEABIRDS

By W. R. P. BOURNE

INTRODUCTION

I fear I owe humble apologies for delays in producing this report, which has held up *Sea Swallow* for a considerable period. As the volume of notes sent in by RNBWS members increases and they come to include more detail, the task of trying to produce a fair summary of their contents has grown from one taking a few days through a labour of weeks to one of months. At the same time the amount of detail available also becomes overpowering, until one fears that recent reports have become as laborious to read as they were to compile. I do not wish to suggest that the collection of so much detailed information is undesirable; I doubt if there is any comparable mine of information on seabirds available anywhere else in the world yet; but under present circumstances the preparation of a full annual report covering everything sent in is becoming impossible. It therefore seems best to cut not only information from the literature but also the amount of detail reported from our own observations this year, and rather than holding *Sea Swallow* up any longer to present a much more condensed summary of items of interest reported during the year aimed at giving some idea of points and problems revealed rather than a full summary of everything reported.

Lest it be thought that the reduced scope of the report this year indicates any diminution of effort, I make haste to point out that although it covers notes from rather fewer observers, probably owing to some irregularity in the rate of arrival of reports through the pipeline, the volume of material received, 180 report sheets, 84 census sheets, 36 reports on birds examined in the hand, and 61 pages of summarised observations, is still greater than last year and represents a further advance in the collection of useful concise information. Most of the credit belongs to comparatively few people, several of whom are now doing outstanding work, so that their notes are increasingly exciting to read; particular bouquets seem due to Messrs. Brinkley, Chilman, Curtis, and Stam for the use they have made of exceptional opportunities, while we have been fortunate to receive important contributions from Dr. Mills and Mr. Small outside our regular reporting net as well.

Lest these and other observers whose notes are still buried in the increasing backlog feel disappointed at delays, it is none the less pleasant to be able to report that despite our temporary difficulties there is evidence of a growing general interest in seabirds and support for more work on them in important places. The recent increasing spate of pollution incidents has served to focus public and scientific attention on birds as indicators of contamination of the environment, while a growing number of marine biologists are also beginning to accept that birds are valuable indicators of events in the sea of other types as well. Members of RNBWS are now beginning to produce a sufficiently large quantity of high-quality notes on birds at sea to make a really useful contribution to work on marine biology once the problem of processing them satisfactorily is solved, and it now seems likely that support should soon be forthcoming to permit a full re-evaluation of our present data-collecting methods in order to devise means to place the work on an increasingly scientific basis and introduce mechanical data-processing techniques for plotting the results.

Meanwhile, we have to ask members to be patient a little longer and to continue to improve their field experience and send in their notes in the expectation that in an already foreseeable future the day will be upon us when it will be possible to transfer all their results directly on to tapes which can then be painlessly fed into machines which will produce finished maps at the other end. The British Trust for Ornithology has already completed half a similar scheme to map all the breeding birds in the country since I first discussed mechanical data-processing in the report before last, and we have carried out sufficient trials with computer programmes to feel that the main problem in applying them to work on seabirds now lies in finding sufficient staff and facilities to put them into practical operation. Once support for this is obtained it seems likely that members will begin to see an entire new dimension in reporting their results, starting with a general analysis of all the back records that have been going on file all these years.

While we are awaiting this millenium, I should like to stress that while the type of marginal record of special interest selected for review this year is liable to be of particular importance, it also tends to require particular care in reporting. It is not very difficult to decide whether birds are being identified accurately in the centre of their range where they are known to be common, but this is more difficult with extralimital records from new places, and these are still too often being left undocumented. There is nothing more exasperating than a plausible record of a bird from a new area which quite possibly fits in with its known movements but which is insufficiently attested to exclude the possibility of confusion with similar species. It may also be worth stressing that careful observations of passing migrants are often more useful than new distributional records, as for example is shown by the series of records of Great Shearwaters and Grey Phalaropes quoted later.

The interest of many reports is also often greatly increased by the addition of other incidental information which helps to explain the bird's behaviour, as for example when it had encountered a storm or some unusual food supply or failure of the food supply, or was in moult or afflicted by parasites or disease. It may require a good deal of knowledge, experience or perspicacity to detect these things, but if they are reported accurately the observations may be vastly more important for explaining the natural history of the birds than mere distributional records of birds passing by. There are usually various experts available who would be pleased to help explain observations of interest, and we would always be pleased to help you get in touch with them.

Finally, I should also like to stress that while we do try to see that all the more important observations reported to RNBWS are eventually recorded in *Sea Swallow* or elsewhere, the ideal solution for obtaining early publication of the more interesting ones is for the observers to write them up themselves. We already have a number of experienced members who have published notes or longer papers in *Sea Swallow* and other ornithological journals, and there are now clearly also an increasing number of others who might well be able to write up their own results if they cared to try. It is perhaps worth stressing that it is best to concentrate on writing up new events or observations in new areas rather than more well-worn themes, which are at the very least liable to require more work to produce important results; and also that inexperienced writers are usually well advised to start with short notes rather than long papers, if only because they

are then liable to waste less of everybody's time when the editor sends them back with a polite request to re-write them more clearly at a quarter the length to include more data. We are always happy to see contributions, either for *Sea Swallow* or to suggest where else they might be submitted, and to advise on the value and best method of presentation of potentially interesting results.

REPORTS RECEIVED IN 1966

During 1966 notes were received from the following seventeen observers in addition to those from the team on the North Atlantic weather ships already discussed by Captain Tuck in *Sea Swallow*, Vol. 19, pp. 11-14:—

2nd Engineer J. O. Brinckley, M.V. Oswestry Grange. Cape Verde Is.—Montevideo, Oct. 1965. Caribbean—Chile and return to Europe, May–July 1966. One report, 18 census sheets, and 5 pages analysis (cf. *Sea Swallow* 19: 15–18).

2nd Officer N. G. Cheshire, S.S. Baskerville. Six voyages between U.K. and St. Lawrence, May–September 1965. One report and 5 census sheets.

Captain P. W. G. Chilman, M.V. Amastra. Caribbean to first the Baltic and return and then West Africa and return, then U.K., Oct. 1964–March 1965. S.S. Hadra, Baltic–Caribbean–Japan and return to Caribbean, June–Sept. 1965. Thirty-six report and 7 census sheets.

Captain A. H. Cooper, R.A.N., H.M.S. Vidal. Trinidad–U.S.A.–U.K., April–May 1966. 12 report sheets.

Mr. R. M. Curber, M.V. Massapia. Marseilles–Cyprus. M.V. Enotria, Cyprus–Venice. May–June 1966. Four census sheets.

Radio Officer W. F. Curtis, S.S. Mobil Skill. Six voyages between Caribbean and eastern U.S.A., Sept.–Dec. 1964. S.S. Mobil Libya, Persian Gulf–western U.S.A. and return–eastern U.S.A. via Cape of Good Hope–Mediterranean–Persian Gulf–eastern U.S.A. via Cape of Good Hope–Caribbean and return–Mediterranean–Persian Gulf–western U.S.A.–Japan–Persian Gulf, Dec. 1965–Nov. 1966. Forty-one report and 13 census sheets.

Captain D. E. James, M.V. Samaria. Two return voyages between New York and U.K., Jan.–Feb. and May 1966. Five pages reports.

Captain W. N. H. Jarvis, M.V. Prospero. Various voyages in North Atlantic, Oct. 1965–March 1966. Two census sheets.

Dr. E. L. Mills, R.V. Anton Bruun. Research cruises off Peru, Oct. 1965, May–June 1966. R.V. Atlantis II, research cruise in western North Atlantic, Aug. 1966. Fifty-six-page summary of results.

2nd Officer D. H. Mobberley, M.V. Lancashire. Japan–Bangkok–Singapore–Cochin–Aden–U.K.–Caribbean–Tahiti–New Caledonia – South Australia–Aden–U.K., Oct. 1965–April 1966. Twenty-four pages reports.

Captain C. R. S. Pitman, M.V. City of Durban. U.K.–Cape Town, April–May 1966. Six pages reports.

2nd Officer W. C. W. Price, R.F.A. Wave Prince. U.K.–Trinidad and return, Nov. 1965 and March 1966. Aden–Malacca Strait, August 1966. Eight report and one one census sheets.

Midshipman D. C. K. Roberts, R.N., H.M.S. Lofoten. U.K. waters, Sept.–Nov. 1966. Three reports and 2 census sheets.

3rd Officer the Hon. J. D. Simon, M.V. Barpeta. Five voyages between the Bay of Bengal, Singapore, south and east Australia. S.S. Iron Duke, eastern Australia, Aug.–Sept. 1966. Forty-three pages reports.

- Mr. A. Small, S.S. Monterey. Los Angeles-Auckland, Feb. 1966; Auckland-Sydney, April 1966. S.S. Centaur, Perth-Singapore; S.S. President Wilson, Hong Kong-Yokohama, July 1966; local trips off California, Sept.-Oct. 1966. Thirteen census sheets.
- Captain P. J. S. Smith, R.M., S.S. Orsova. U.K.-Suez-Melbourne, Aug.-Sept. 1965, 6 census sheets.
- Captain D. Stam, M.V. Tamara. Suez-Japan-Bay of Bengal-Persian Gulf-Japan and return; Montevideo-Hamburg Dec. 1965-May 1966. Thirteen census sheets.

NOTES ON SPECIES

ALBATROSSES: FAMILY DIOMEDEIDAE

Two Shy Albatrosses *Diomedea cauta* were reported by D.S. off eastern South America at $54\frac{1}{4}^{\circ}\text{S}$ $53\frac{3}{4}^{\circ}\text{W}$ on 13 April, 1966. W.F.C. saw a Light-mantled Sooty Albatross *Phoebastria palpebrata* at close range among a concourse of seabirds, many of southern origin and several rare or unrecorded off South Africa, five miles off Cape Agulhas on 21 February, 1966.

TRUE PETRELS: FAMILY PROCELLARIIDAE

About a thousand Northern Fulmars *Fulmarus glacialis* were seen behind each of five Russian trawlers off the Strait of Belle Isle at $53^{\circ}20'\text{N}$ $51^{\circ}20'\text{W}$ by N.G.C. on 22 August, 1965. Only one bird in the dark phase was noticed. There were about thirty Great Shearwaters and twenty storm-petrels with them. This area appears to be one of the major nurseries for young birds in the North Atlantic; it is strange that they do not breed nearby, although there are recent reports of Fulmars seen near islands off Newfoundland in the breeding season.

Bulwer's Petrel *Bulweria bulwerii* was reported in its little-known winter quarters both by D.S., who saw one in the tropical Atlantic at $6\frac{1}{4}^{\circ}\text{N}$ $31\frac{3}{4}^{\circ}\text{W}$ on 2 March, 1966, and A.S., who described one seen in the tropical Pacific at 3°S 144°W on 13 February, 1966. W.F.C. also saw a Kerguelen Petrel *Pterodroma brevirostris* at close range among the southern seabirds congregating five miles off Cape Agulhas on 21 February, 1966; he describes it as uniformly grey with darker areas on the wings and tail. The type of the species is said to have come from this area, but there have been few or no records since then. W.F.C. provides a detailed description of two Capped Petrels *Pterodroma hasitata* seen far north over the Gulf Stream at 38°N $69\frac{1}{2}^{\circ}\text{W}$ on 16 August, 1966, and W.F.C. another old record of one at $19\frac{3}{4}^{\circ}\text{N}$ $74\frac{1}{4}^{\circ}\text{W}$ on 8 October, 1964.

There are a number of notes on Cory's Shearwater *Calonectris diomedea* (*Puffinus kuhlii*) in its little-known winter quarters. P.W.G.C. reports 70 some twenty miles WNW of Monrovia, west Africa, on 20 January, 1965, at least 200 at $4\frac{3}{4}^{\circ}\text{N}$ $9\frac{1}{4}^{\circ}\text{W}$ next day, and again at $4\frac{1}{2}^{\circ}\text{N}$ $8\frac{1}{4}^{\circ}\text{W}$ on 25 January. W.F.C. saw at least 25 with the birds congregating off Cape Agulhas on 21 February, 1966, and smaller numbers every day or two sailing north afterwards until he reached $10\frac{3}{4}^{\circ}\text{N}$ 37°W on 3 March. When sailing west round the Cape of Good Hope D.S. saw the first four at $33\frac{1}{2}^{\circ}\text{S}$ $27\frac{1}{2}^{\circ}\text{E}$ on 28 March, 1966, a maximum of a hundred at 35°S $17\frac{1}{2}^{\circ}\text{E}$ two days later, occasional birds west to 33°S $49\frac{1}{2}^{\circ}\text{W}$ approaching Montevideo on 19 April (unfortunately he does not describe them), and sailing north afterwards seven at $30\frac{3}{4}^{\circ}\text{S}$ $44\frac{1}{2}^{\circ}\text{W}$ on 20 April and eight at 28°S $38\frac{3}{4}^{\circ}\text{W}$ next day. P.W.G.C. describes a White-faced Shearwater *Calonectris leu-*

comelas seen unusually far east in the north Pacific at $14\frac{1}{2}^{\circ}\text{N}$ $134\frac{1}{4}^{\circ}\text{W}$ on 27 July, 1965, as "all brown above; head brown to eye level and mottled below, underside white with irregular dark edges to wings, bill and feet light coloured."

Comparatively little is known about the return southward migration of the Great Shearwater *Puffinus gravis*. J.O.B. crossed its path returning from the Caribbean in September 1966. He saw at least twenty birds at $42\frac{1}{2}^{\circ}\text{N}$ $38\frac{1}{2}^{\circ}\text{W}$ on the 9th, at least fifty at $44\frac{1}{2}^{\circ}\text{N}$ $33\frac{3}{4}^{\circ}\text{W}$ next day, at least twenty at $47\frac{1}{2}^{\circ}\text{N}$ $22\frac{3}{4}^{\circ}\text{W}$ on the 11th, and ten at $48\frac{1}{2}^{\circ}\text{N}$ 17°W on the 12th, which supports the view that it occurs scattered across a broad front in mid ocean. W.F.C. saw an early northbound migrant in the tropical Atlantic at $13\frac{1}{4}^{\circ}\text{N}$ $26\frac{1}{4}^{\circ}\text{W}$ on 1 March, 1966. Cruising around the north Pacific in January 1966 he also noticed a number of small dark shearwaters which he thought must be Short-tailed Shearwaters *Puffinus tenuirostris* although they should have been breeding in the southern hemisphere then, including twenty-eight off the Strait of Juan de Fuca on the 4th, three at $51\frac{3}{4}^{\circ}\text{N}$ $146\frac{1}{4}^{\circ}\text{W}$ on the 9th, thirty-one at $53\frac{1}{4}^{\circ}\text{N}$ $178\frac{3}{4}^{\circ}\text{W}$ on the 12th, and one at $49\frac{3}{4}^{\circ}\text{N}$ $171\frac{3}{4}^{\circ}\text{E}$ on the 14th. Twenty-seven birds flying rapidly WSW at $36\frac{1}{2}^{\circ}\text{N}$ $164\frac{1}{4}^{\circ}\text{W}$ on 24 September, 1966, may have been part of the southbound migration which also appear to occur on a broad front in mid-ocean.

There are a few records of the Manx Shearwater *Puffinus puffinus* from the extremities of its range; N.G.C. recorded one off the Strait of Belle Isle at 52°N 55°W on 1 August, 1965, and others in mid Atlantic at 53°N 35°W and 53°N 33°W on 19 August and 6 September. J.O.B. saw at least five black and white shearwaters which were doubtless this species in its winter quarters at $34\frac{1}{2}^{\circ}\text{S}$ 54°W on 15 October, 1965. There are also a number of northerly records of Little and/or Audubon's Shearwaters *Puffinus assimilis* and *P. lherminieri*. E.L.M. reports a number over the Gulf Stream with a water temperature of 30°C . around $38\frac{1}{4}^{\circ}\text{N}$ 70°W on 16 August, 1965, and others north to the edge of the warm water 140 miles south-east of Nantucket Island on the 24th; the water temperature then dropped two degrees from 26° to 24°C . in two hours and Great Shearwaters appeared instead. Further north N.G.C. saw two small black and white shearwaters with a quick wing-beat south of Newfoundland at 46°N 54°W on 29 June, 1965, and W.F.C. another in mid-ocean at $42\frac{1}{2}^{\circ}\text{N}$ $48\frac{3}{4}^{\circ}\text{W}$ on 9 August, 1966.

STORM-PETRELS: FAMILY HYDROBATITDAE

The records of Wilson's Storm-petrel *Oceanites oceanicus* from Ocean Weather Station Juliet west of Ireland in September and October 1966 already remarked upon by Captain Tuck last year (*Sea Swallow* 19: 12) are of particular interest because of the rarity of reports of the species in British waters nearby; one of the birds that came on board listed in the table of birds examined had a very long wing, and like at least one other reported from Ireland in the past must have belonged to the high Antarctic breeding form *O.o.exasperatus*. The two others measured in the North Atlantic had intermediate wing lengths, but it is notable that six out of twenty-five that came onboard off Ecuador measured by J.O.B. were much shorter in the wing, and presumably like specimens of Elliot's Storm-petrel *Oceanites gracilis* measured at the same time which also had short wings must have belonged to the distinct small South American populations.

A White-faced Storm-petrel *Pelagodroma marina* was seen by W.F.C. unusually far west in the North Atlantic at 32°N $40\frac{3}{4}^{\circ}\text{W}$ on

17 April, 1966, and D.S. also saw four off West Africa at $16\frac{3}{4}^{\circ}\text{N}$ $17\frac{1}{2}^{\circ}\text{W}$ on 8 May, 1966. There are also a number of useful records of White-bellied Storm-petrels *Fregetta grallaria*, including in the Indian Ocean three reported by P.J.S.S. at 12°N $58\frac{1}{4}^{\circ}\text{E}$ on 2 September, 1965, and one seen close alongside by W.F.C. at $1\frac{1}{2}^{\circ}\text{S}$ 48°E on 20 June, 1966, and one which he saw in the tropical Atlantic at $9\frac{3}{4}^{\circ}\text{S}$ $13\frac{3}{4}^{\circ}\text{W}$ on 2 July, 1966. J.O.B. recorded a bird of the South American race *segethi* aboard off northern Chile shortly afterwards as shown in the table, and D.H.M. reports twenty-one at $26\frac{3}{4}^{\circ}\text{S}$ 163°E on 20 February, 1966, and seventeen again at about 31°S 158°E next day, which suggests that the colonies in the Tasman Sea, about which little has been heard for many years, may not be extinct yet. A.S. reported two White-throated Storm-petrels *Nesofregetta albigularis* in the central South Pacific at 21°S $161\frac{1}{4}^{\circ}\text{W}$ on 19 February, 1966.

The Galapagos Storm-petrel *Oceanodroma tethys* was first encountered by A.S. on a voyage between California and New Zealand at 17°N $130\frac{1}{2}^{\circ}\text{W}$ on 10 February, 1966, and he saw fifteen at $10\frac{1}{2}^{\circ}\text{N}$ 135°W next day, nine at $3\frac{1}{2}^{\circ}\text{N}$ 139°W the day after, and five at 3°S 144°W on the 13th; the species seems to disperse north across the equator regularly. Four birds which J.O.B. had on board off Ecuador on 25 July, 1966, had rather short wings like the other storm-petrels that occurred with them, and also appear to have belonged to the mainland race (*O.t.kelsalli*) rather than the Galapagos one. A.S. also reported two Maderan Storm-petrels *Oceanodroma castro* at 17°N $130\frac{1}{2}^{\circ}\text{W}$ on 10 February, 1966.

TROPIC-BIRDS, BOOBIES, FRIGATE-BIRDS:

FAMILIES PHAETHONTIDAE, SULIDAE, FREGATIDAE

The parasites infesting a Red-tailed Tropic-bird *Phaethon rubricauda* which P.W.G.C. had on board east of Hawaii at 20°N $152\frac{1}{4}^{\circ}\text{W}$ on 30 July, 1965 (*Sea Swallow* 19: 53, 66) have been identified at the British Museum (Natural History) as feather-mites of the family *Proctophylloidae*, almost certainly *Laminalloptes phaethontis* (Fabricius). The young Brown Booby *Sula leucogaster* recorded off Surinam by W.N.H.J. on 23 March, 1966, was also noticed to be swarming with brown parasites up to 3mm. long; the bill was mostly blue-grey, yellower towards the head, the skin around the eye was light greenish-yellow with a light blue orbital ring and grey iris, and the legs and feet were pale yellow. A.S. reports fifty-two Great Frigate-birds *Fregata minor* in the Java Sea south-east of the Bangka Strait on 26 June, 1966.

PHALAROPES: FAMILY PHALAROPOPIDAE

We have a number of records of phalaropes, sometimes in large numbers, from the recognised wintering areas in the Arabian Sea (Red-necked Phalaropes *Phalaropus lobatus*), off West Africa (Grey Phalaropes *Phalaropus fulicarius*) and the west coast of the Americas (both species), and several of birds on migration in the North Atlantic. P.W.G.C. provides an interesting series of records of birds seen while crossing the North Pacific in August 1965, starting with ten at $42\frac{1}{4}^{\circ}\text{N}$ $163\frac{3}{4}^{\circ}\text{E}$ on the 18th, with 105 at 44°N $176\frac{1}{4}^{\circ}\text{W}$ next day, fifty at $42\frac{1}{4}^{\circ}\text{N}$ $159\frac{3}{4}^{\circ}\text{W}$ on the 21st, and 220 at 42°N 156°W on the 22nd. They were pale grey above and appeared to be Grey Phalaropes. There are already many records suggesting that the north American

breeding populations of this species migrate south-east across the North Atlantic to winter off West Africa, and it would appear from these records that the Asian populations may similarly migrate south-east across the North Pacific to the wintering grounds off South America, which may help to explain the extreme rarity of the species further south in Asia, where the main wintering species appears to be the Red-necked Phalarope. Unfortunately he does not record the direction in which the birds were flying.

SKUAS: FAMILY STERCORARIIDAE

Great Skuas *Catharacta skua* were seen by E.L.M. off Peru northwards to $6\frac{1}{4}^{\circ}\text{S}$ 81°W on 4 October, 1965. In the north Pacific P.W.G.C. thought that a large, heavy skua with white wing patches chasing a Wedge-tailed Shearwater at 9°N $95\frac{1}{2}^{\circ}\text{W}$ on 20 July, 1965, might also be this species, and he later saw three more approaching Japan at $43\frac{1}{2}^{\circ}\text{N}$ 172°E on 19 August. C.R.S.P. reported one unusually far south off Cape Blanco, north-west Africa, on 2 May, 1966. P.W.G.C. also saw ten possible Long-tailed Skuas *Stercorarius longicaudus* at $40\frac{1}{2}^{\circ}\text{N}$ $156\frac{1}{2}^{\circ}\text{E}$ on 17 August, 1965, and eight more at $42\frac{1}{4}^{\circ}\text{N}$ $163\frac{3}{4}^{\circ}\text{E}$ next day, shortly before seeing the Great Skuas; some of them still had long tails.

GULLS: FAMILY LARIDAE

An adult Ivory Gull *Pagophila eburnea* flew by W.F.C. at close range at $54\frac{1}{2}^{\circ}\text{N}$ $167\frac{3}{4}^{\circ}\text{W}$ off the Aleutians on 11 January, 1966, and further south A.S. saw a first-year Glaucous Gull *Larus hyperboreus* south-west of California at $30\frac{1}{2}^{\circ}\text{N}$ $121\frac{1}{4}^{\circ}\text{W}$ on 8 February, 1966. There are several records of Sabine's Gull *Xema sabini* from the west coast of North America, including 370 (about 30 per cent adult) seen by A.S. ten miles off Monterey on 1 October, 1966. W.F.C. saw two in the winter quarters of the Atlantic population five miles off Cape Agulhas on 21 February, 1966, and both C.R.S.P. and D.S. large numbers migrating north off west Africa later in that spring. The first reports many hundreds moving north in flocks west of Cape Blanco on 2 May, some fifty off Cape Verde and Portuguese Guinea next day, and twenty-two west of Freetown the day after, and the second one at $11\frac{1}{2}^{\circ}\text{N}$ $17\frac{1}{2}^{\circ}\text{W}$ on 7 May, and some 200 at 23°N $17\frac{1}{4}^{\circ}\text{W}$ two days later.

TERNs: FAMILY STERNIDAE

There are the usual scattered records of Sooty Terns *Sterna fuscata* from tropical seas; these are of considerable interest, as their movements appear very complex and little is known about them yet. W.C.W.P. had four birds on board in the Indian Ocean, and comments on their curious "musty, peppery odour"; a number of seabirds have a distinctive smell, though people rarely see fit to comment on it, and the subject might be worth more study. The last of his birds which came aboard south of Ceylon in August was in a strange plumage with a mottled head and some scaly markings on the back; it was originally identified as a moulting Black Tern *Chlidonias niger*, but judging by the photographs is a Sooty Tern moulting out of the distinctive dark immature plumage into that of the adult. Comparatively little is known about the time when this moult occurs, and more such records would also be useful while photographs of the birds are particularly valuable. C.R.S.P. also reports a Sooty Tern unusually far north off West Africa just south of the tropic of Cancer on 2 May, 1966.

An immature Brown-winged Tern *Sterna anaethetus* which D.S. had aboard in the south Red Sea on 2 October, 1965, appeared to be

ill, and died two days later. Other sick birds also came aboard at $19\frac{1}{4}^{\circ}\text{N}$ $39\frac{1}{4}^{\circ}\text{E}$ and $24\frac{1}{4}^{\circ}\text{N}$ $36\frac{1}{4}^{\circ}\text{E}$ as he sailed up to Suez over the next two days, which suggests that an epidemic must have been raging in the area, possibly influenza, which is known to have affected Common Terns *Sterna hirundo* off South Africa in 1961. The Influenza Unit of the World Health Organisation is particularly anxious to investigate such outbreaks (caused by strains of influenza which also infect poultry and may be closely related to the human ones), and if anyone else meets sick birds of this type of any species it would be valuable if they could collect pathological specimens; samples of respiratory tissues deep frozen immediately after death for the isolation of virus are most valuable, but failing this samples of blood or serum for the detection of antibodies are useful. They should be sent as soon as possible to the unit at the National Institution for Medical Research, Mill Hill, London NW 7.

The two Common or Brown Noddies *Anous stolidus* reported on board in the Atlantic by J.O.B. were both heavily infested with parasites; this species is also reported to be particularly prone to infestation at breeding colonies in the Indian Ocean and elsewhere. The first, which came aboard off Surinam in May, was completing a moult of the flight-feathers, with eight new primaries in each wing and new outer tail-feathers, although it did not appear to be in body moult. The second came aboard off the West Indies 400 miles south of the path of Hurricane Faith; the wind was quite light at the time, but it appeared tired and thin and may have been exhausted after an earlier encounter with the storm. These records like those of Brown-winged Terns in the Red Sea suggest that the birds only came aboard because there was something wrong with them, and it would clearly often be informative to have more information about the circumstances of such arrivals.

REPORTS OF BIRDS EXAMINED IN THE HAND

Species	Observers	Date	Position	Sea Temp.	Length	Wing-span	Comment
Northern Fulmar	E. D. & A. M.	8. 9.65	58° 54'N 19° 14'W	12.4°	397	—	pale: bill 38
Northern Fulmar	N. L.	17. 5.66	61° 58'N 33° 00'W	7.2°	460	1100	pale: bill 40
Northern Fulmar	N. L. & A. J. O.	25. 5.66	62° N 33° W	—	475	982	dark: bill 37
Wedge-tailed Shearwater	P. W. G. Chilman	27. 9.65	07° 40'N 86° 20'W	28°	400	905	pale phase
Pink-footed Shearwater	J. O. Brinkley	25. 7.66	04° 30'S 84° 45'W	16.5°	450	965	two
Wilson's Storm-petrel	A. H. Cooper	16. 5.66	40° N 58½° W	17°	—	—	wing 150
Wilson's Storm-petrel	R. J. B.	20. 9.66	52° 36'N 19° 36'W	14.3°	181	—	wing 149
Wilson's Storm-petrel	N. L. & E. D. M.	12.10.66	52° 36'N 19° 42'W	13.2°	177	363	wing 161
Wilson's Storm-petrel	J. O. Brinkley	25. 7.66	04° 30'S 81° 45'W	18°	165—	340—	six of 25: wings 133—144, av. 139
Elliot's Storm-petrel	J. O. Brinkley	25. 7.66	04° 30'S 81° 45'W	18°	145	217	2, wings 126, 127
White-bellied Storm-petrel	J. O. Brinkley	19. 7.66	20° S 76½° W	18.5°	180	400	wing 160
Leach's Storm-petrel	N. L. & E. D. M.	12.10.66	52° 42'N 19° 42'W	13.2°	213	419	
Leach's Storm-petrel	N. L. & E. D. M.	12.10.66	52° 36'N 20° 00'W	13.3°	191	430	
Leach's Storm-petrel	R. B. D.	15.10.66	59° N 19° W	12.0°	210	460	
Galapagos Storm-petrel	J. O. Brinkley	25. 7.66	04° 30'S 81° 45'W	18°	140—150	330—365	14 wings 123—130, av. 125
Black Storm-petrel	S. E. Chapman	12. 1.66	07° 42'N 79° 35'W	—	—	—	
Hornby's Storm-petrel	J. O. Brinkley	25. 7.66	04° 30'S 81° 45'W	18°	215	310	two
White-tailed Tropic-bird	J. D. Simon	14. 6.66	12° 15'S 107° E	28°	715	778	race <i>fulvus</i>
Brown Booby	W. N. H. Jarvis	23. 3.66	11° N 52° W	—	702	1443	immature
Red-necked Phalarope	S. E. Chapman	22. 1.66	17° 10'N 101° 19'W	—	—	—	winter plumage
Great Black-backed Gull	N. L. & E. D. M.	11. 2.66	59° 02'N 19° 10'W	9.3°	695	1673	adult
Great Black-backed Gull	N. L. & E. D.	11. 2.66	59° N 19° W	9.5°	645	1518	immature
Kittiwake	N. L.	15. 1.66	44° 56'N 16° 03'W	12.9°	371	815	adult, oiled
Kittiwake	N. L.	4. 5.66	61° 42'N 30° 55'W	8.8°	380	897	immature
Sooty Tern	W. C. W. Price	20. 7.66	09° 33'S 48° 23'E	25°	380	600	adult
Sooty Tern	W. C. W. Price	21. 7.66	06° 30'S 52° 30'E	27°	330	600	adult
Sooty Tern	W. C. W. Price	26. 7.66	04° 50'S 46° 18'E	26°	350	520	adult
Sooty Tern	W. C. W. Price	14. 8.66	01° 10'N 79° 30'E	29°	310	740	moulting immature
Sooty Tern	P. W. G. Chilman	18. 8.66	17½° N 72° W	29°	403	810	adult
Sooty Tern	P. W. G. Chilman	19. 8.66	17½° N 72° W	29°	369	—	adult
Brown-winged Tern	D. Stam	2.10.65	14° 40'N 42° 22'E	32°	310	700	immature, sick
Common Noddy	J. O. Brinkley	14. 4.66	6½° N 7° W	27°	320	640	wing & tail moult
Common Noddy	J. O. Brinkley	1. 9.66	27° 45'N 67° W	26°	355	740	hurricane to N.
Little Auk	N. L. and J. F.	29. 3.66	52° 32'N 19° 50'W	10.4°	203	230	oiled
Little Auk	N. L. and E. D.	8. 4.66	52° 26'N 20° 13'W	10.5°	184	333	
Little Auk	N. L. and J. O.	25. 5.66	62° 01'N 33° 02'W	7.8°	212	372	

(Sea temperatures in °C. measurements in mm., initials only given for members of the crew of weather ships, including R. J. Burness, R. B. Dyer, J. Fowler, N. Lynagh, E. D. Macdonald, A. Mitchell, A. J. O'Dell. Any further details in systematic list.)

SPECIAL REVIEW: SIX NOTABLE WORKS

Peuplement et cycles de reproduction des oiseaux de la côte occidentale d'Afrique, R. de Naurois, 1969. Mémoires du Muséum National d'Histoire Naturelle, Series A, Zoologie, Tome LVI, pp. 312, numerous maps and figures. Editions du Muséum, 38 Rue Geoffroy, Saint-Hilaire (Ve), Paris.

The discovery of the vast seabird breeding stations along the west coast of Africa provides one of the more exciting stories of post-war years. Unfortunately so far the reports have been widely scattered and have seldom provided more than a fraction of the story. The Abbé de Naurois, who has been responsible for many of the more exciting finds during a dozen years of sustained exploration at an age when most of us will be going into retirement, has now brought all the information together in a monumental description and interpretation of the results which must count as one of the most important documents on seabirds of recent years.

He opens with a description of the local climate and oceanography, the last describing important new work by M. Rossignol on the movement of currents and water-masses with the seasons offshore not easily available elsewhere. The bulk of the book is given over to lovingly detailed accounts of the sea-bird colonies from north to south, ranging from offshore islands supporting Common Cormorants, Herring Gulls and a variety of terns off the Spanish Sahara, through the great citadels of pelicans, flamingoes, spoonbills, herons, cormorants, gulls and terns off Mauretania (which also support a few isolated pairs of such northern landbirds as the Blue-headed Wagtail as well) to the Senegal delta with hosts of wintering palaearctic waders and wildfowl, the Red-billed Tropic birds of Cape Verde, the ibises, cranes, darters, and tropical cormorants and herons of the mangrove swamps off Portuguese Guinea, and the surprising colony of Common Terns nearby.

He ends with a general discussion reviewing the distribution of each species with a number of useful maps, their breeding seasons and habits, with some reflections on the effects of climatic changes on the situation, with particular attention to the moister climate of the Sahara during the ice-ages. It is impossible to summarise all the information provided or all his ideas in a short space, they cover such a wide field; but in general it may be said that his strong points are perhaps his discussions of distribution, breeding biology and speculative zoogeography, and his weakest point feeding ecology. In any case he portrays a magnificent and thought-provoking panorama which has few equals and which wise ornithologists would do well to study at length.

Comparative feeding ecology of sea birds of a tropical oceanic island. N. P. and M. J. Ashmole, 1967. Peabody Museum of Natural History, Yale University, Bulletin 24, pp. 131, 11 figures. New Haven.

This presents an important supplement to the preceding volume. Philip Ashmole of course provided a major contribution to the fullest account of an oceanic seabird colony yet available in Volume 103b of the Ibis describing the results of the B.O.U. expedition to Ascension. On this occasion he paid nine visits to Christmas Island in the central Pacific over the course of fifteen months to collect 800 samples of

food regurgitated by the eight commonest of the smaller seabirds breeding on the atoll. His wife then laboriously catalogued the material obtained by number of items, volume and size of each, and the number of times each class of food occurred, a job to intimidate the bravest laboratory worker.

It was found that fish and squid formed the bulk of the food for all the birds investigated. Fish were especially important in the Black (or Lesser) and Blue-Grey Noddies *Anous tenuirostris* and *Procelsterna coerulea*, and squid in the two petrels, the Phoenix Petrel *Pterodroma alba* and Christmas Shearwater *Puffinus nativitatis*. The remaining four species, the Sooty Tern *Sterna fuscata*, Brown (or Common) Noddy *Anous stolidus*, White Tern *Gygis alba* and Red-tailed Tropic bird *Phaethon rubricauda* took roughly equal volumes of fish and squid, but the individual fish were on average smaller than the squid, except with the tropic-bird, which took some fish and squid much larger than those eaten by the other birds, among various differences of detail in the diet of different species. Representatives of thirty-three families of fish were identified, but only twelve were important. Most of the squid belonged to the genus *Symplectoteuthis*, while the Phoenix Petrel caught several other groups of squid as well.

It was thought that the two fish-eating terns fed mainly close inshore, while the other species fed at varying distances out to sea, notably in the region of the equatorial counter-current and in areas where food accumulated at the meeting point between converging currents. Much attention has been paid to the importance of upwelling in leading to an increased productivity of the sea through bringing nutrient salts to the surface in the past, but much less to the importance of sinking during later stages in the vertical circulation of the water of the oceans; however, it appears it may be at least equally important in providing food for birds, because the more buoyant food animals stay behind when the water sinks and tend to accumulate in areas of water-sinking, where shoals of predatory tuna force them up to the water surface to become available to birds, each species using a different feeding method.

This is an extremely important study, but none the less raises as many questions as it answers, like all the best work. It was not carried out for long enough to tell whether conditions always remain the same, or vary from year to year, and if so, whether the birds adapt their behaviour to changes. It is not entirely clear whether food brought to the nest is representative of the normal diet of the birds at sea, or was specially chosen as suitable for the breeding season, or, indeed, what relation material found in bird stomachs some time afterwards bears to what was caught out at sea, since some items doubtless last longer in the stomach than others. It would have been interesting to have comparative data on the food of some of the other seabirds also nesting on the atoll, such as the storm-petrel, the second shearwater, and the boobies and frigate-birds; even at the expense of slightly less material for the species that were investigated; but one does not know what difficulties the authors surmounted in obtaining what they did get, without asking for more. As it is, they have provided a contribution of very great interest in a field where little comparable was previously available. It now remains for other people to carry out comparative investigations elsewhere to find out to what extent their findings are typical.

It is not very difficult to find birds' stomach contents (often they present them to you freely), or to collect them in formalin. It may be more difficult to find someone to analyse them, but the preliminary

sorting at least should be easy, and experts may be able to identify much of the material later. Seabird food deserves much more study; the results could prove of general interest for marine biology. Who is going to collect some more samples?

Die Mauser der Vogel

E. and V. Stresemann, 1966. *Journal für Ornithologie* 107 suppl. pp. 445. R. Freidlander and Sohn, 1 Berlin 41 (Steglitz).

This is a monumental compilation by the most distinguished living ornithologist and his wife discussing the moult of all the birds in the world. The German text is incomprehensible to too many of us, but the lists of specimens in moult and bibliographies for each group should be comprehensible to anyone and immediately make it clear roughly what is known about each species. This is frequently extremely interesting, as for example where the auks and divers lose all their flight-feathers simultaneously and become flightless for a time, the Puffin and the larger divers doing this in the spring; or where the Pelecaniformes show several active centres of moult in the wing simultaneously, proceeding slowly outwards along its length. There is a very great need for more information on moult, and this volume is an indispensable guide to present knowledge.

Die Federlingsfauna der Sturmvögel und die Phylogenese des procellariiformen Vogelstammes.

G. Timmermann, 1965. *Abhandlungen und Verhandlungen des Naturwissenschaftlichen Vereins in Hamburg*, No. VIII Suppl., pp. 249, XII plates. Gram, de Gruyter and Co., Hamburg.

A monumental study of the feather-lice of the petrels, with some conclusions as to the relations of the birds based on those among their Mallophaga. The greater part of the work devoted to a systematic study of the parasites is again a model example of German meticulousness; probably few of us allow for the complex organisation of spring-cleaners that birds carry about in their plumage, which must have evolved with them. The final conclusions on relationships indicate some interesting affinities, as for example between the Great, Pink-footed and Flesh-footed Shearwaters *Puffinus gravis*, *P. creatopus* and *P. carneipes*, or between the Blue Petrel *Halobaena coerulea*, the prions *Pachyptila* and the gadfly petrels *Pterodroma*; but the final suggestion that the genus *Pterodroma* should be split straight down the middle, with the Trindade Petrel *Pterodroma arminjoniana* coming on one side of the division and the barely separable Herald Petrel *P.a. heraldica* on the other on the strength of the two groups having different sorts of parasite is taking inference too far; some louse somewhere must have been changing hosts in mid evolution, and then pushed another louse out of half its kingdom. Somebody ought to write a thriller about piracy among parasites.

H. C. Oliver, 1968. Annotated index to some early New Zealand bird literature. Pp. 222. Wildlife Publication No. 106, Department of Internal Affairs, Wellington, New Zealand.

National Library of Australia, 1966. Checklist to the Mathews Ornithological Collection. Pp. 309. National Library of Australia, Canberra, Australia.

The early history of the exploration of new parts of the world naturally tends to be obscure and difficult to unravel. Few people realise the debt that we owe to early compilers and bibliographers who brought scattered information together to create a coherent story. In

Europe we now take it for granted that the early history of our birds is lost in remote antiquity and we know pretty well what happened in recent times. In other parts of the world the situation is not so simple; there have been immense changes within recent historic time, and much of the information is still available for those who care to seek it. This applies particularly to Australasia, where there has been a complete revolution in natural conditions documented increasingly well by a growing army of naturalists within the comparatively short time of only 200 years. These two works are important in providing the key to knowledge of the earlier stages of this process contained in the early colonial literature.

Mrs. Oliver, a librarian in the Department of Internal Affairs and widow of the author of a classic New Zealand ornithological textbook, has undertaken as a vast labour of love a classified index to ten major sources of early information about the birds of New Zealand, covering notes on individual species, localities, and the works of her main authors, and a glossary of the meanings of the names used. The National Library of Australia complements this with a list of the contents of the library of the greatest ornithological bibliophile to interest himself in the area, G. M. Mathews, which he used in writing a series of important works, including a brief sketch of the author by Dr. D. L. Serventy, an introduction to the work by Mr. H. L. White, the National Librarian, and lists of catalogue entries of a vast variety of published literature and a limited series of manuscripts and pictures including some important items.

The two volumes present an incoherent spectacle on a cursory inspection. On the other hand, they are liable to be invaluable for anyone anxious to trace quickly or verify many early references.

W. R. P. BOURNE.

NEW MEMBERS

NEW MEMBERS—1968

- Brown, J.A., 2nd Officer, M.N.
 Careless, D., Petty Officer, R.N. H.M.S. *Fulmar* (R.N.A.S. Lossiemouth).
 Currie, J. K., Captain M.N. M.V. *King Arthur* (Cayzer Irvine and Co. Ltd.).
 Davies, W. M., Radio Officer, M.N. Deep Sea Trawler Fleet.
 Down, E. H., Esq., Ex Air Sea Rescue Service. London, N.W. 7.
 Harris, M. G. T., Lieutenant R.N. H.M.S. *Neptune* (Commodore Clyde, S/M Base).
 Knight, N. E., M.T. Orsino, British Ice Patrol Ship.
 Marchant, E. L., Radio Officer, M.N. M.V. *Oron*.
 Marden, R. V., Eng. Sub. Lieutenant (R.E.), R.N. H.M.S. *Albion*.
 McClure, I. A. M., Lieutenant R.N. H.M.S. *Glamorgan*.
 Messenger, N. R., Second Officer, M.N. s.s. *Surat*, P. & O. Co. Ltd.
 Rowe, H. P., Esq., Ex. R.N. Supply Branch. R.F.A. Lyness.
 Rushbrooke, J., Captain, R.N. Faversham, Kent.
 Russell, A.S., Navigating Cadet, M.V. British Commerce.
 Tierney, H., Miss. Ex W.R.N.S.
 E. W. Dawson, Esq., New Zealand Oceanographic Institute, P.O. Box 8009, Wellington, N.Z.
 Corporate Member: H.M.S. *Fulmar* (R.N.A.S., Lossiemouth).

R.N.B.W.S. REPRESENTATIVES OVERSEAS

R.N.B.W.S. will always welcome offers from Ornithologists resident overseas, particularly in the vicinity of ports, willing to act as R.N.B.W.S. Representatives to whom R.N.B.W.S. members could refer when in the vicinity.

AUSTRALIA—

Western Australia: Julian Ford Esq., 7 Pinner Place, Lynwood, Western Australia.

Victoria (Melbourne): Roy Wheeler Esq., 59A Upton Road, Windsor, Phone 51, 6331 (*Bird Observers Club, R.A.O.U.*).

Victoria (Geelong): Jack Wheeler Esq., 19 Roslyn Road, Belmont, Geelong. Phone Geelong 86728 (*Geelong Field Naturalists Club, R.A.O.U.*).

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J. D. Gibson Esq., 12 Redman Avenue, Thirroul. (*R.A.O.U.*).

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Lieut. Commander R. Stackpole, U.S.N.R., Normandy, Ocean Avenue, Newport, R.I. (*Member R.N.B.W.S.*).

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The following Natural History Museums overseas receive copies of *Sea Swallow*—Names of contacts in brackets:—

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C.S.I.R.O. Division of Wildlife Research, Canberra, A.C.T. (W. B. Hitchcock).

Curator of Birds, Australia Museum, College Street, Sydney, N.S.W. (H. D. S. Disney, M.A.).

CANADA—

National Museum of Canada, Ottawa.

Redpath Museum, McGill University Library, Montreal.

FRANCE—

Museum of Natural History, Paris (Monsieur Jauanin).

W. GERMANY—

Zoological Museum, Bonn (Dr. Niethammer).

HOLLAND—

Rijksmuseum of Natural History, Leiden.

Zoological Museum, University of Amsterdam (Dr. K. H. Voous), (Dr. J. Wattel).

HONOLULU—

Berenice P. Bishop. Museum.

NEW ZEALAND—

University of Canterbury, Christchurch (Dr. Bernard Stonehouse).

U.S.A.—

The American Museum of Natural History, New York (Librarian).

Peabody Museum, Yale, New Haven, Connecticut (Dr. Ripley).

Smithsonian Institution, Division of Birds, Washington, 25, D.C. (Mr. George E. Watson, Mr. Patrick J. Gould).

University of California, Los Angeles (Biochemical Library, Center of Health Services).

Alfred O. Gross Library of Ornithology, Bowden's College, Brunswick, Maine.

Library, Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts.

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Note—At the Annual General Meeting, 1967, the status of 'Corresponding Members' was altered to that of 'Associate Members.'

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Dr. J. M. Winterbottom (Rondebosch, Cape Province).

SWITZERLAND—

Monsieur Raymond Lévêque (Geneva).

THE ROYAL NAVAL

RECEIPTS AND PAYMENTS ACCOUNT FOR

1967									
£	s.	d.	£	s.	d.		£	s.	d.
192	16	10				Balance 1st December 1967—			
						Cash at bank		258	0 9
						Subscriptions			
						Current year—			
			20	12	0	Under covenant	47	12	0
			100	1	0	Other	82	18	10
			5	12	0	Arrears	4	15	0
			3	15	0	In advance	4	15	0
130	0	0						140	0 10
						Donations			
			2	18	0	Under covenant	3	11	0
			7	11	6	Other	12	7	0
10	9	6						15	18 0
						Income tax recovered on members' covenanted subscriptions and donations up to 5th April, 1967			
22	18	3				(See Note 1.)		16	9 1
6	5	0				Sale of members' ties (4) ...		4	5 0
						Other receipts—			
45	9	0				Sales of <i>Sea Swallow</i> ...		33	12 4
			1	0	0	Sale of 1966 Christmas Cards ...			
			35	8	4	Sale of 1967 Christmas Cards ...	34	17	9
36	8	4				(See Note 2.)		34	17 9
						Grant in aid from Royal Society for improvement of <i>Sea Swallow</i>		100	0 0
						Transfer from 'A' account—net proceeds of sales of <i>Seabirds of the South Pacific</i>	140	5	5
						Add sales during year ...	2	16	6
								143	1 11
						Refund of subscriptions to The Ring Series 'B' on ceasing publication			
1	0	0							

NOTES—

- 1—Refund of income tax amounting to £35 16s. 2d. on members' covenanted subscriptions and donations for the financial year ended 5th April, 1968, is at present receiving attention from the Commissioners of Inland Revenue.
- 2—No entries are included in this year's accounts in respect of sales of 1968 Christmas Cards.
- 3—In addition to the cash at bank the assets of the society include £206 11s. 6d. Greater London 7¼% Stock 1977 (purchased 4th June, 1968).

£445 6 11

£746 5 8

I have examined the above account with the books and records of the soc

St. Mary Axe House,
56/60 St. Mary Axe,
London, E.C. 3.
11th December, 1968.

BIRD WATCHING SOCIETY

THE YEAR ENDED 30th NOVEMBER, 1968

1967							
£	s. d.	£	s. d.			£	s. d.
24	10 5			Postage and stationery ...	...	24	9 6
				Printing ...	...	
				Sea Swallow 1966 (700) (balance of payment) ...	...	
100	0 0			Sea Bird Report Sheets (1,000)	...	3	6 0
2	10 6			R.N.B.W.S. Letter Heads. (1,000)	...		
4	10 0			R.N.B.W.S. Revised Prospectuses	...		
				Minutes of 1967 Annual General Meeting ...	...	1	4 0
10	10 0			Bulletins 68-70 ...	...	10	15 0
				Addressed envelopes (300) for covenant appeal ...	...	
12	0			Compliment Slips (100) ...	...	9	0
				Memo Sheets—Deed of Covenant Appeal (320) ...	...	
				Deed of Covenant Forms (200)	...		
		4	6 6	Bankers Order Forms (300) ...	...	
123	13 0			Expenses of Annual General Meeting 1967 ...	...	15	14 0
1	19 0			Subscriptions—	...	7	4 0
		2	10 0	British Trust for Ornithology ...	...	2	10 0
		2	2 0	I.C.B.P. (British Section) ...	...	2	2 0
		2	0 0	Council for Nature ...	...	
6	12 0			Printing 1968 Christmas Cards (940) ...	...	4	12 0
29	10 9			Bank Charges ...	...	35	7 3
1	1 0			Purchase of Greater London 7¼% 1977 Stock (£206 11 6) ...	...	1	6 0
				BALANCE 30th November, 1968...	...	200	0 0
258	0 9			Cash at Bank ...	...	457	12 11

£445 6 11

£746 5 8

and certify that it is correct and in accordance therewith.

(Signed) R. G. PEGLER,
Chartered Accountant,
Hon. Auditor.